

# Lower Thames Crossing

## 7.7 Combined Modelling and Appraisal Report - Appendix C - Transport Forecasting Package Annexes

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### List of contents

	Page number
<b>1 Executive summary</b> .....	<b>1</b>
<b>Annexes</b> .....	<b>4</b>
<b>Annex A Uncertainty Log</b> .....	<b>5</b>
<b>Annex B LTC Scheme Impacts – Cross River Flow Comparisons</b> .....	<b>73</b>
<b>Annex C LTC Scheme Impacts – Detailed Link Based Journey Time Comparisons</b> .	<b>82</b>
<b>Annex D Sensitivity Tests – Outputs to Economic Assessment</b> .....	<b>131</b>
<b>Annex E Sensitivity Tests – Flow Comparisons to Core Scenario</b> .....	<b>473</b>
<b>Annex F Sensitivity Tests – Outputs to Operational Assessment</b> .....	<b>498</b>

Model Run IDs used in this report are:

Base	=	LR_N108
Base Plus	=	LR_BP09
Core Do Minimum =	=	LR_CM49
Core Do Something	=	LR_CS72
Low Growth Do Minimum	=	LR_LM49
Low Growth Do Something	=	LR_LS72
High Growth Do Minimum	=	LR_HM49
High Growth Do Something	=	LR_HS72

## List of plates

	<b>Page number</b>
Plate B.1 AM Southbound Cross River Flows (PCU/Hr) Core, Low and High Growth Scenarios.....	73
Plate B.2 IP Southbound Cross River Flows (PCU/Hr) Core, Low and High Growth Scenarios.....	74
Plate B.3 PM Southbound Cross River Flows (PCU/Hr) Core, Low and High Growth Scenarios.....	75
Plate B.4 AM Northbound Cross River Flows Approaching TMC (PCU/Hr) Core, Low and High Growth Scenarios.....	76
Plate B.5 IP Northbound Cross River Flows Approaching TMC (PCU/Hr) Core, Low and High Growth Scenarios.....	77
Plate B.6 PM Northbound Cross River Flows Approaching TMC (PCU/Hr) Core, Low and High Growth Scenarios.....	78
Plate B.7 AM Northbound Cross River Flows After TMC (PCU/Hr) Core, Low and High Growth Scenarios.....	79
Plate B.8 IP Northbound Cross River Flows After TMC (PCU/Hr) Core, Low and High Growth Scenarios.....	80
Plate B.9 PM Northbound Cross River Flows After TMC (PCU/Hr) Core, Low and High Growth Scenarios.....	81
Plate C.1 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2030 Core AM Peak.....	84
Plate C.2 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2030 Core Inter Peak.....	86
Plate C.3 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2030 Core PM Peak.....	88
Plate C.4 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2030 Core AM Peak.....	90
Plate C.5 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2030 Core Inter Peak.....	92
Plate C.6 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2030 Core PM Peak.....	94
Plate C.7 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2037 Core AM Peak.....	96
Plate C.8 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2037 Core Inter Peak.....	98
Plate C.9 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2037 Core PM Peak.....	100
Plate C.10 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2037 Core AM Peak.....	102
Plate C.11 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2037 Core Inter Peak.....	104
Plate C.12 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2037 Core PM Peak.....	106
Plate C.13 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2045 Core AM Peak.....	108
Plate C.14 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2045 Core Inter Peak.....	110

Plate C.15 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2045 Core PM Peak .....	112
Plate C.16 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2045 Core AM Peak .....	114
Plate C.17 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2045 Core Inter Peak.....	116
Plate C.18 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2045 Core PM Peak .....	118
Plate C.19 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2051 Core AM Peak .....	120
Plate C.20 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2051 Core Inter Peak.....	122
Plate C.21 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2051 Core PM Peak .....	124
Plate C.22 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2051 Core AM Peak .....	126
Plate C.23 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2051 Core Inter Peak.....	128
Plate C.24 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2051 Core PM Peak .....	130
Plate D.1 Select Link Analysis – Dartford Crossing DM 2030 Low AM Peak.....	153
Plate D.2 Select Link Analysis – Dartford Crossing DS 2030 Low AM Peak .....	153
Plate D.3 Select Link Analysis – Lower Thames Crossing DS 2030 Low AM Peak.....	154
Plate D.4 Select Link Analysis – Dartford Crossing DM 2030 Low Inter Peak.....	156
Plate D.5 Select Link Analysis – Dartford Crossing DS 2030 Low Inter Peak.....	156
Plate D.6 Select Link Analysis – Lower Thames Crossing DS 2030 Low Inter Peak.....	157
Plate D.7 Select Link Analysis – Dartford Crossing DM 2030 Low PM Peak.....	159
Plate D.8 Select Link Analysis – Dartford Crossing DS 2030 Low PM Peak .....	159
Plate D.9 Select Link Analysis – Lower Thames Crossing DS 2030 Low PM Peak.....	160
Plate D.10 Actual Flow Comparison Plot – 2030 Low Growth DM Vs DS AM Peak .....	162
Plate D.11 Actual Flow Comparison Plot – 2030 Low Growth DM Vs DS Inter Peak .....	163
Plate D.12 Actual Flow Comparison Plot – 2030 Low Growth DM Vs DS PM Peak .....	163
Plate D.13 Select Link Analysis – Dartford Crossing DM 2037 Low AM Peak.....	194
Plate D.14 Select Link Analysis – Dartford Crossing DS 2037 Low AM Peak .....	194
Plate D.15 Select Link Analysis – Lower Thames Crossing DS 2037 Low AM Peak.....	195
Plate D.16 Select Link Analysis – Dartford Crossing DM 2037 Low Inter Peak.....	197
Plate D.17 Select Link Analysis – Dartford Crossing DS 2037 Low Inter Peak.....	197
Plate D.18 Select Link Analysis – Lower Thames Crossing DS 2037 Low Inter Peak.....	198
Plate D.19 Select Link Analysis – Dartford Crossing DM 2037 Low PM Peak.....	200
Plate D.20 Select Link Analysis – Dartford Crossing DS 2037 Low PM Peak .....	200
Plate D.21 Select Link Analysis – Lower Thames Crossing DS 2037 Low PM Peak.....	201
Plate D.22 Actual Flow Comparison Plot – 2037 Low Growth DM Vs DS AM Peak .....	203
Plate D.23 Actual Flow Comparison Plot – 2037 Low Growth DM Vs DS Inter Peak .....	203
Plate D.24 Actual Flow Comparison Plot – 2037 Low Growth DM Vs DS PM Peak .....	204
Plate D.25 Select Link Analysis – Dartford Crossing DM 2045 Low AM Peak.....	236
Plate D.26 Select Link Analysis – Dartford Crossing DS 2045 Low AM Peak .....	236
Plate D.27 Select Link Analysis – Lower Thames Crossing DS 2045 Low AM Peak.....	237
Plate D.28 Select Link Analysis – Dartford Crossing DM 2045 Low Inter Peak.....	239
Plate D.29 Select Link Analysis – Dartford Crossing DS 2045 Low Inter Peak.....	239
Plate D.30 Select Link Analysis – Lower Thames Crossing DS 2045 Low Inter Peak.....	240

Plate D.31 Select Link Analysis – Dartford Crossing DM 2045 Low PM Peak.....	242
Plate D.32 Select Link Analysis – Dartford Crossing DS 2045 Low PM Peak .....	242
Plate D.33 Select Link Analysis – Lower Thames Crossing DS 2045 Low PM Peak.....	243
Plate D.34 Actual Flow Comparison Plot – 2045 Low Growth DM Vs DS AM Peak .....	245
Plate D.35 Actual Flow Comparison Plot – 2045 Low Growth DM Vs DS Inter Peak .....	245
Plate D.36 Actual Flow Comparison Plot – 2045 Low Growth DM Vs DS PM Peak .....	246
Plate D.37 Select Link Analysis – Dartford Crossing DM 2051 Low AM Peak.....	277
Plate D.38 Select Link Analysis – Dartford Crossing DS 2051 Low AM Peak .....	277
Plate D.39 Select Link Analysis – Lower Thames Crossing DS 2051 Low AM Peak.....	278
Plate D.40 Select Link Analysis – Dartford Crossing DM 2051 Low Inter Peak .....	280
Plate D.41 Select Link Analysis – Dartford Crossing DS 2051 Low Inter Peak.....	280
Plate D.42 Select Link Analysis – Lower Thames Crossing DS 2051 Low Inter Peak.....	281
Plate D.43 Select Link Analysis – Dartford Crossing DM 2051 Low PM Peak.....	283
Plate D.44 Select Link Analysis – Dartford Crossing DS 2051 Low PM Peak .....	283
Plate D.45 Select Link Analysis – Lower Thames Crossing DS 2051 Low PM Peak.....	284
Plate D.46 Actual Flow Comparison Plot – 2051 Low Growth DM Vs DS AM Peak .....	286
Plate D.47 Actual Flow Comparison Plot – 2051 Low Growth DM Vs DS Inter Peak .....	287
Plate D.48 Actual Flow Comparison Plot – 2051 Low Growth DM Vs DS PM Peak .....	287
Plate D.49 Select Link Analysis – Dartford Crossing DM 2030 High AM Peak.....	318
Plate D.50 Select Link Analysis – Dartford Crossing DS 2030 High AM Peak.....	318
Plate D.51 Select Link Analysis – Lower Thames Crossing DS 2030 High AM Peak.....	319
Plate D.52 Select Link Analysis – Summary of Primary Corridors of Movement 2030 High AM Peak Two-Way Flow.....	320
Plate D.53 Select Link Analysis – Dartford Crossing DM 2030 High Inter Peak .....	321
Plate D.54 Select Link Analysis – Dartford Crossing DS 2030 High Inter Peak.....	321
Plate D.55 Select Link Analysis – Lower Thames Crossing DS 2030 High Inter Peak ....	322
Plate D.56 Select Link Analysis – Dartford Crossing DM 2030 High PM Peak .....	324
Plate D.57 Select Link Analysis – Dartford Crossing DS 2030 High PM Peak.....	324
Plate D.58 Select Link Analysis – Lower Thames Crossing DS 2030 High PM Peak.....	325
Plate D.59 Actual Flow Comparison Plot – 2030 High Growth DM Vs DS AM Peak .....	327
Plate D.60 Actual Flow Comparison Plot – 2030 High Growth DM Vs DS Inter Peak .....	327
Plate D.61 Actual Flow Comparison Plot – 2030 High Growth DM Vs DS PM Peak .....	328
Plate D.62 Select Link Analysis – Dartford Crossing DM 2037 High AM Peak.....	360
Plate D.63 Select Link Analysis – Dartford Crossing DS 2037 High AM Peak.....	360
Plate D.64 Select Link Analysis – Lower Thames Crossing DS 2037 High AM Peak.....	361
Plate D.65 Select Link Analysis – Dartford Crossing DM 2037 High Inter Peak .....	363
Plate D.66 Select Link Analysis – Dartford Crossing DS 2037 High Inter Peak.....	363
Plate D.67 Select Link Analysis – Lower Thames Crossing DS 2037 High Inter Peak ....	364
Plate D.68 Select Link Analysis – Dartford Crossing DM 2037 High PM Peak .....	366
Plate D.69 Select Link Analysis – Dartford Crossing DS 2037 High PM Peak.....	366
Plate D.70 Select Link Analysis – Lower Thames Crossing DS 2037 High PM Peak.....	367
Plate D.71 Actual Flow Comparison Plot – 2037 High Growth DM Vs DS AM Peak .....	369
Plate D.72 Actual Flow Comparison Plot – 2037 High Growth DM Vs DS Inter Peak .....	369
Plate D.73 Actual Flow Comparison Plot – 2037 High Growth DM Vs DS PM Peak .....	370
Plate D.74 Select Link Analysis – Dartford Crossing DM 2045 High AM Peak .....	402
Plate D.75 Select Link Analysis – Dartford Crossing DS 2045 High AM Peak.....	402
Plate D.76 Select Link Analysis – Lower Thames Crossing DS 2045 High AM Peak.....	403
Plate D.77 Select Link Analysis – Dartford Crossing DM 2045 High Inter Peak .....	405
Plate D.78 Select Link Analysis – Dartford Crossing DS 2045 High Inter Peak.....	405
Plate D.79 Select Link Analysis – Lower Thames Crossing DS 2045 High Inter Peak ....	406

Plate D.80 Select Link Analysis – Dartford Crossing DM 2045 High PM Peak .....	408
Plate D.81 Select Link Analysis – Dartford Crossing DS 2045 High PM Peak.....	408
Plate D.82 Select Link Analysis – Lower Thames Crossing DS 2045 High PM Peak.....	409
Plate D.83 Actual Flow Comparison Plot – 2045 High Growth DM Vs DS AM Peak .....	411
Plate D.84 Actual Flow Comparison Plot – 2045 High Growth DM Vs DS Inter Peak .....	411
Plate D.85 Actual Flow Comparison Plot – 2045 High Growth DM Vs DS PM Peak .....	412
Plate D.86 Select Link Analysis – Dartford Crossing DM 2051 High AM Peak .....	443
Plate D.87 Select Link Analysis – Dartford Crossing DS 2051 High AM Peak.....	443
Plate D.88 Select Link Analysis – Lower Thames Crossing DS 2051 High AM Peak.....	444
Plate D.89 Select Link Analysis – Dartford Crossing DM 2051 High Inter Peak .....	446
Plate D.90 Select Link Analysis – Dartford Crossing DS 2051 High Inter Peak.....	446
Plate D.91 Select Link Analysis – Lower Thames Crossing DS 2051 High Inter Peak ....	447
Plate D.92 Select Link Analysis – Dartford Crossing DM 2051 High PM Peak.....	449
Plate D.93 Select Link Analysis – Dartford Crossing DS 2051 High PM Peak.....	449
Plate D.94 Select Link Analysis – Lower Thames Crossing DS 2051 High PM Peak.....	450
Plate D.95 Actual Flow Comparison Plot – 2051 High Growth DM Vs DS AM Peak .....	452
Plate D.96 Actual Flow Comparison Plot – 2051 High Growth DM Vs DS Inter Peak .....	452
Plate D.97 Actual Flow Comparison Plot – 2051 High Growth DM Vs DS PM Peak .....	453
Plate E.1 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2030 DM AM Peak	473
Plate E.2 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2030 DM Inter Peak .....	474
Plate E.3 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2030 DM PM Peak	474
Plate E.4 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2037 DM AM Peak	475
Plate E.5 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2037 DM Inter Peak .....	475
Plate E.6 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2037 DM PM Peak	476
Plate E.7 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2045 DM AM Peak	476
Plate E.8 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2045 DM Inter Peak .....	477
Plate E.9 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2045 DM PM Peak	477
Plate E.10 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051 DM AM Peak .....	478
Plate E.11 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051 DM Inter Peak .....	478
Plate E.12 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051 DM PM Peak .....	479
Plate E.13 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2030 DS AM Peak	479
Plate E.14 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2030 DS Inter Peak .....	480
Plate E.15 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2030 DS PM Peak	480
Plate E.16 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2037 DS AM Peak	481

Plate E.17 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2037 DS Inter Peak .....	481
Plate E.18 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2037 DS PM Peak	482
Plate E.19 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2045 DS AM Peak	482
Plate E.20 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2045 DS Inter Peak .....	483
Plate E.21 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2045 DS PM Peak	483
Plate E.22 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051 DS AM Peak	484
Plate E.23 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051 DS Inter Peak .....	484
Plate E.24 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051 DS PM Peak	485
Plate E.25 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2030 DM AM Peak .....	485
Plate E.26 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2030 DM Inter Peak .....	486
Plate E.27 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2030 DM PM Peak .....	486
Plate E.28 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2037 DM AM Peak .....	487
Plate E.29 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2037 DM Inter Peak .....	487
Plate E.30 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2037 DM PM Peak .....	488
Plate E.31 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2045 DM AM Peak .....	488
Plate E.32 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2045 DM Inter Peak .....	489
Plate E.33 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2045 DM PM Peak .....	489
Plate E.34 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051 DM AM Peak .....	490
Plate E.35 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051 DM Inter Peak .....	490
Plate E.36 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051 DM PM Peak .....	491
Plate E.37 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2030 DS AM Peak .....	491
Plate E.38 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2030 DS Inter Peak .....	492
Plate E.39 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2030 DS PM Peak .....	492
Plate E.40 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2037 DS AM Peak .....	493
Plate E.41 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2037 DS Inter Peak .....	493

Plate E.42 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2037 DS PM Peak .....	494
Plate E.43 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2045 DS AM Peak .....	494
Plate E.44 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2045 DS Inter Peak .....	495
Plate E.45 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2045 DS PM Peak .....	495
Plate E.46 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051 DS AM Peak .....	496
Plate E.47 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051 DS Inter Peak .....	496
Plate E.48 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051 DS PM Peak .....	497
Plate F.1 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 Low Growth AM Peak All Vehicles (PCUs) .....	500
Plate F.2 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 Low Growth AM Peak HGV (PCUs) .....	501
Plate F.3 LTC Junction with A13 – LTAM Predicted Traffic Flows 2030 Low Growth AM Peak All Vehicles (PCUs) .....	502
Plate F.4 LTC Junction with A13 – LTAM Predicted Traffic Flows 2030 Low Growth AM Peak HGV (PCUs) .....	503
Plate F.5 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 Low Growth AM Peak All Vehicles (PCUs) .....	504
Plate F.6 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 Low Growth AM Peak HGV (PCUs) .....	505
Plate F.7 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 Low Growth PM Peak All Vehicles (PCUs) .....	506
Plate F.8 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 Low Growth PM Peak HGV (PCUs) .....	507
Plate F.9 LTC Junction with A13 – LTAM Predicted Traffic Flows 2030 Low Growth PM Peak All Vehicles (PCUs) .....	508
Plate F.10 LTC Junction with A13 – LTAM Predicted Traffic Flows 2030 Low Growth PM Peak HGV (PCUs) .....	509
Plate F.11 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 Low Growth PM Peak All Vehicles (PCUs) .....	510
Plate F.12 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 Low Growth PM Peak HGV (PCUs) .....	511
Plate F.13 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2037 Low Growth AM Peak All Vehicles (PCUs) .....	512
Plate F.14 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2037 Low Growth AM Peak HGV (PCUs) .....	513
Plate F.15 LTC Junction with A13 – LTAM Predicted Traffic Flows 2037 Low Growth AM Peak All Vehicles (PCUs) .....	514
Plate F.16 LTC Junction with A13 – LTAM Predicted Traffic Flows 2037 Low Growth AM Peak HGV (PCUs) .....	515
Plate F.17 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 Low Growth AM Peak All Vehicles (PCUs) .....	516
Plate F.18 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 Low Growth AM Peak HGV (PCUs) .....	517



Plate F.19 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2037 Low Growth PM Peak All Vehicles (PCUs) .....	518
Plate F.20 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2037 Low Growth PM Peak HGV (PCUs) .....	519
Plate F.21 LTC Junction with A13 – LTAM Predicted Traffic Flows 2037 Low Growth PM Peak All Vehicles (PCUs) .....	520
Plate F.22 LTC Junction with A13 – LTAM Predicted Traffic Flows 2037 Low Growth PM Peak HGV (PCUs) .....	521
Plate F.23 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 Low Growth PM Peak All Vehicles (PCUs) .....	522
Plate F.24 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 Low Growth PM Peak HGV (PCUs) .....	523
Plate F.25 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2045 Low Growth AM Peak All Vehicles (PCUs) .....	524
Plate F.26 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2045 Low Growth AM Peak HGV (PCUs) .....	525
Plate F.27 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 Low Growth AM Peak All Vehicles (PCUs) .....	526
Plate F.28 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 Low Growth AM Peak HGV (PCUs) .....	527
Plate F.29 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 Low Growth AM Peak All Vehicles (PCUs) .....	528
Plate F.30 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 Low Growth AM Peak HGV (PCUs) .....	529
Plate F.31 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2045 Low Growth PM Peak All Vehicles (PCUs) .....	530
Plate F.32 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2045 Low Growth PM Peak HGV (PCUs) .....	531
Plate F.33 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 Low Growth PM Peak All Vehicles (PCUs) .....	532
Plate F.34 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 Low Growth PM Peak HGV (PCUs) .....	533
Plate F.35 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 Low Growth PM Peak All Vehicles (PCUs) .....	534
Plate F.36 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 Low Growth PM Peak HGV (PCUs) .....	535
Plate F.37 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak All Vehicles (PCUs) .....	536
Plate F.38 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak HGV (PCUs) .....	537
Plate F.39 LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak All Vehicles (PCUs) .....	538
Plate F.40 LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak HGV (PCUs) .....	539
Plate F.41 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak All Vehicles (PCUs) .....	540
Plate F.42 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak HGV (PCUs) .....	541
Plate F.43 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak All Vehicles (PCUs) .....	542

Plate F.44 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak HGV (PCUs) .....	543
Plate F.45 LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak All Vehicles (PCUs) .....	544
Plate F.46 LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak HGV (PCUs) .....	545
Plate F.47 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak All Vehicles (PCUs) .....	546
Plate F.48 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak HGV (PCUs) .....	547
Plate F.49 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 High Growth AM Peak All Vehicles (PCUs) .....	548
Plate F.50 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 High Growth AM Peak HGV (PCUs) .....	549
Plate F.51 LTC Junction with A13 – LTAM Predicted Traffic Flows 2030 High Growth AM Peak All Vehicles (PCUs) .....	550
Plate F.52 LTC Junction with A13 – LTAM Predicted Traffic Flows 2030 High Growth AM Peak HGV (PCUs) .....	551
Plate F.53 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 High Growth AM Peak All Vehicles (PCUs) .....	552
Plate F.54 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 High Growth AM Peak HGV (PCUs) .....	553
Plate F.55 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 High Growth PM Peak All Vehicles (PCUs) .....	554
Plate F.56 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 High Growth PM Peak HGV (PCUs) .....	555
Plate F.57 LTC Junction with A13 – LTAM Predicted Traffic Flows 2030 High Growth PM Peak All Vehicles (PCUs) .....	556
Plate F.58 LTC Junction with A13 – LTAM Predicted Traffic Flows 2030 High Growth PM Peak HGV (PCUs) .....	557
Plate F.59 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 High Growth PM Peak All Vehicles (PCUs) .....	558
Plate F.60 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 High Growth PM Peak HGV (PCUs) .....	559
Plate F.61 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2037 High Growth AM Peak All Vehicles (PCUs) .....	560
Plate F.62 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2037 High Growth AM Peak HGV (PCUs) .....	561
Plate F.63 LTC Junction with A13 – LTAM Predicted Traffic Flows 2037 High Growth AM Peak All Vehicles (PCUs) .....	562
Plate F.64 LTC Junction with A13 – LTAM Predicted Traffic Flows 2037 High Growth AM Peak HGV (PCUs) .....	563
Plate F.65 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 High Growth AM Peak All Vehicles (PCUs) .....	564
Plate F.66 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 High Growth AM Peak HGV (PCUs) .....	565
Plate F.67 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2037 High Growth PM Peak All Vehicles (PCUs) .....	566
Plate F.68 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2037 High Growth PM Peak HGV (PCUs) .....	567

Plate F.69 LTC Junction with A13 – LTAM Predicted Traffic Flows 2037 High Growth PM Peak All Vehicles (PCUs) .....	568
Plate F.70 LTC Junction with A13 – LTAM Predicted Traffic Flows 2037 High Growth PM Peak HGV (PCUs) .....	569
Plate F.71 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 High Growth PM Peak All Vehicles (PCUs) .....	570
Plate F.72 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 High Growth PM Peak HGV (PCUs) .....	571
Plate F.73 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2045 High Growth AM Peak All Vehicles (PCUs) .....	572
Plate F.74 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2045 High Growth AM Peak HGV (PCUs) .....	573
Plate F.75 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 High Growth AM Peak All Vehicles (PCUs) .....	574
Plate F.76 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 High Growth AM Peak HGV (PCUs) .....	575
Plate F.77 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 High Growth AM Peak All Vehicles (PCUs) .....	576
Plate F.78 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 High Growth AM Peak HGV (PCUs) .....	577
Plate F.79 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2045 High Growth PM Peak All Vehicles (PCUs) .....	578
Plate F.80 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2045 High Growth PM Peak HGV (PCUs) .....	579
Plate F.81 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 High Growth PM Peak All Vehicles (PCUs) .....	580
Plate F.82 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 High Growth PM Peak HGV (PCUs) .....	581
Plate F.83 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 High Growth PM Peak All Vehicles (PCUs) .....	582
Plate F.84 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 High Growth PM Peak HGV (PCUs) .....	583
Plate F.85 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak All Vehicles (PCUs) .....	584
Plate F.86 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak HGV (PCUs) .....	585
Plate F.87 LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak All Vehicles (PCUs) .....	586
Plate F.88 LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak HGV (PCUs) .....	587
Plate F.89 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak All Vehicles (PCUs) .....	588
Plate F.90 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak HGV (PCUs) .....	589
Plate F.91 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak All Vehicles (PCUs) .....	590
Plate F.92 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak HGV (PCUs) .....	591
Plate F.93 LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak All Vehicles (PCUs) .....	592

Plate F.94 LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 High Growth PM  
 Peak HGV (PCUs) ..... 593  
 Plate F.95 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 High Growth PM  
 Peak All Vehicles (PCUs) ..... 594  
 Plate F.96 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 High Growth PM  
 Peak HGV (PCUs) ..... 595

**List of tables**

**Page number**

Table 1.1 Predicted Peak and Inter-Peak Two-Way Hourly Flows at the Dartford Crossing  
 and the Lower Thames Crossing (PCUs) ..... 3

Table A.1 Planned Land Use Developments in LTAM ..... 6  
 Table A.2 Planned Highway Schemes in the LTAM ..... 68  
 Table C.1 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound –  
 2030 Core AM Peak ..... 83  
 Table C.2 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound –  
 2030 Core Inter Peak ..... 85  
 Table C.3 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound –  
 2030 Core PM Peak ..... 87  
 Table C.4 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound  
 – 2030 Core AM Peak ..... 89  
 Table C.5 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound  
 – 2030 Core Inter Peak ..... 91  
 Table C.6 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound  
 – 2030 Core PM Peak ..... 93  
 Table C.7 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound –  
 2037 Core AM Peak ..... 95  
 Table C.8 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound –  
 2037 Core Inter Peak ..... 97  
 Table C.9 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound –  
 2037 Core PM Peak ..... 99  
 Table C.10 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound  
 – 2037 Core AM Peak ..... 101  
 Table C.11 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound  
 – 2037 Core Inter Peak ..... 103  
 Table C.12 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound  
 – 2037 Core PM Peak ..... 105  
 Table C.13 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound  
 – 2045 Core AM Peak ..... 107  
 Table C.14 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound  
 – 2045 Core Inter Peak ..... 109  
 Table C.15 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound  
 – 2045 Core PM Peak ..... 111  
 Table C.16 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound  
 – 2045 Core AM Peak ..... 113

Table C.17 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2045 Core Inter Peak.....	115
Table C.18 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2045 Core PM Peak.....	117
Table C.19 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2051 Core AM Peak.....	119
Table C.20 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2051 Core Inter Peak.....	121
Table C.21 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26 Northbound – 2051 Core PM Peak.....	123
Table C.22 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2051 Core AM Peak.....	125
Table C.23 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2051 Core Inter Peak.....	127
Table C.24 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2051 Core PM Peak.....	129
Table D.1 LTAM Reference Matrix Totals in DIADEM Segmentation (Low Growth Scenario Highway Trips in PCUs).....	132
Table D.2 LTAM Reference Matrix Totals in SATURN Segmentation (Low Growth Scenario Hourly PCUs).....	135
Table D.3 LTAM Reference Matrix Totals in DIADEM Segmentation (High Growth Scenario Highway Trips in PCUs).....	137
Table D.4 LTAM Reference Matrix Totals in SATURN Segmentation (High Growth Scenario Hourly PCUs).....	140
Table D.5 Convergence and Stability Statistics (Low 2030 DM).....	143
Table D.6 Convergence and Stability Statistics (Low 2030 DS).....	144
Table D.7 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (Low 2030 Reference DM and DS Highway Trips in PCUs).....	145
Table D.8 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (Low 2030 Reference DM and DS Hourly PCUs).....	148
Table D.9 HAM Convergence Statistics – 2030 Low Growth DM AM Peak.....	151
Table D.10 HAM Convergence Statistics – 2030 Low Growth DM Inter Peak.....	151
Table D.11 HAM Convergence Statistics – 2030 Low Growth DM PM Peak.....	151
Table D.12 HAM Convergence Statistics – 2030 Low Growth DS AM Peak.....	151
Table D.13 HAM Convergence Statistics – 2030 Low Growth DS Inter Peak.....	152
Table D.14 HAM Convergence Statistics – 2030 Low Growth DS PM Peak.....	152
Table D.15 Select Link Analysis – Summary of Primary Corridors of Movement 2030 Low AM Peak Two-Way Flow.....	155
Table D.16 Select Link Analysis – Summary of Primary Corridors of Movement 2030 Low Inter Peak Two-Way Flow.....	158
Table D.17 Select Link Analysis – Summary of Primary Corridors of Movement 2030 Low PM Peak Two-Way Flow.....	161
Table D.18 Cross River Traffic Flows (NB Flows Approaching TMC) – 2030 Low Growth DM Vs DS (Hourly Flows in PCUs).....	164
Table D.19 Cross River Traffic Flows (NB Flows After TMC) – 2030 Low Growth DM Vs DS (Hourly Flows in PCUs).....	165
Table D.20 Key Corridor Traffic Flows – 2030 Low Growth DM Vs DS (Hourly Flows in PCUs).....	166
Table D.21 Link Based Journey Time Scenario Comparison (2030 Low Growth DM Vs DS) AM Peak.....	168

Table D.22 Link Based Journey Time Scenario Comparison (2030 Low Growth DM Vs DS) Inter Peak .....	169
Table D.23 Link Based Journey Time Scenario Comparison (2030 Low Growth DM Vs DS) PM Peak .....	170
Table D.24 Route Based Journey Time Comparison North to South Movements (2030 Low Growth DM Vs DS) AM Peak.....	171
Table D.25 Route Based Journey Time Comparison North to South Movements (2030 Low Growth DM Vs DS) Inter Peak .....	173
Table D.26 Route Based Journey Time Comparison North to South Movements (2030 Low Growth DM Vs DS) PM Peak.....	175
Table D.27 Route Based Journey Time Comparison South to North Movements (2030 Low Growth DM Vs DS) AM Peak.....	177
Table D.28 Route Based Journey Time Comparison South to North Movements (2030 Low Growth DM Vs DS) Inter Peak .....	179
Table D.29 Route Based Journey Time Comparison South to North Movements (2030 Low Growth DM Vs DS) PM Peak.....	181
Table D.30 Convergence and Stability Statistics (Low 2037 DM).....	184
Table D.31 Convergence and Stability Statistics (Low 2037 DS) .....	185
Table D.32 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (Low 2037 Reference DM and DS Highway Trips in PCUs).....	186
Table D.33 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (Low 2037 Reference DM and DS Hourly PCUs).....	189
Table D.34 HAM Convergence Statistics – 2037 Low Growth DM AM Peak.....	192
Table D.35 HAM Convergence Statistics – 2037 Low Growth DM Inter Peak.....	192
Table D.36 HAM Convergence Statistics – 2037 Low Growth DM PM Peak.....	192
Table D.37 HAM Convergence Statistics – 2037 Low Growth DS AM Peak .....	192
Table D.38 HAM Convergence Statistics – 2037 Low Growth DS Inter Peak.....	193
Table D.39 HAM Convergence Statistics – 2037 Low Growth DS PM Peak .....	193
Table D.40 Select Link Analysis – Summary of Primary Corridors of Movement 2037 Low AM Peak Two-Way Flow.....	196
Table D.41 Select Link Analysis – Summary of Primary Corridors of Movement 2037 Low Inter Peak Two-Way Flow.....	199
Table D.42 Select Link Analysis – Summary of Primary Corridors of Movement 2037 Low PM Peak Two-Way Flow.....	202
Table D.43 Cross River Traffic Flows (NB Flows Approaching TMC) – 2037 Low Growth DM Vs DS (Hourly Flows in PCUs).....	205
Table D.44 Cross River Traffic Flows (NB Flows After TMC) – 2037 Low Growth DM Vs DS (Hourly Flows in PCUs).....	207
Table D.45 Key Corridor Traffic Flows – 2037 Low Growth DM Vs DS (Hourly Flows in PCUs) .....	208
Table D.46 Link Based Journey Time Scenario Comparison (2037 Low Growth DM Vs DS) AM Peak .....	210
Table D.47 Link Based Journey Time Scenario Comparison (2037 Low Growth DM Vs DS) Inter Peak .....	211
Table D.48 Link Based Journey Time Scenario Comparison (2037 Low Growth DM Vs DS) PM Peak.....	212
Table D.49 Route Based Journey Time Comparison North to South Movements (2037 Low Growth DM Vs DS) AM Peak.....	213
Table D.50 Route Based Journey Time Comparison North to South Movements (2037 Low Growth DM Vs DS) Inter Peak .....	215

Table D.51 Route Based Journey Time Comparison North to South Movements (2037 Low Growth DM Vs DS) PM Peak.....	217
Table D.52 Route Based Journey Time Comparison South to North Movements (2037 Low Growth DM Vs DS) AM Peak.....	219
Table D.53 Route Based Journey Time Comparison South to North Movements (2037 Low Growth DM Vs DS) Inter Peak.....	221
Table D.54 Route Based Journey Time Comparison South to North Movements (2037 Low Growth DM Vs DS) PM Peak.....	223
Table D.55 Convergence and Stability Statistics (Low 2045 DM).....	226
Table D.56 Convergence and Stability Statistics (Low 2045 DS).....	227
Table D.57 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (Low 2045 Reference DM and DS Highway Trips in PCUs).....	228
Table D.58 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (Low 2045 Reference DM and DS Hourly PCUs).....	231
Table D.59 HAM Convergence Statistics – 2045 Low Growth DM AM Peak.....	234
Table D.60 HAM Convergence Statistics – 2045 Low Growth DM Inter Peak.....	234
Table D.61 HAM Convergence Statistics – 2045 Low Growth DM PM Peak.....	234
Table D.62 HAM Convergence Statistics – 2045 Low Growth DS AM Peak.....	234
Table D.63 HAM Convergence Statistics – 2045 Low Growth DS Inter Peak.....	235
Table D.64 HAM Convergence Statistics – 2045 Low Growth DS PM Peak.....	235
Table D.65 Select Link Analysis – Summary of Primary Corridors of Movement 2045 Low AM Peak Two-Way Flow.....	238
Table D.66 Select Link Analysis – Summary of Primary Corridors of Movement 2045 Low Inter Peak Two-Way Flow.....	241
Table D.67 Select Link Analysis – Summary of Primary Corridors of Movement 2045 Low PM Peak Two-Way Flow.....	244
Table D.68 Cross River Traffic Flows (NB Flows Approaching TMC) – 2045 Low Growth DM Vs DS (Hourly Flows in PCUs).....	247
Table D.69 Cross River Traffic Flows (NB Flows After TMC) – 2045 Low Growth DM Vs DS (Hourly Flows in PCUs).....	248
Table D.70 Key Corridor Traffic Flows – 2045 Low Growth DM Vs DS (Hourly Flows in PCUs).....	249
Table D.71 Link Based Journey Time Scenario Comparison (2045 Low Growth DM Vs DS) AM Peak.....	251
Table D.72 Link Based Journey Time Scenario Comparison (2045 Low Growth DM Vs DS) Inter Peak.....	252
Table D.73 Link Based Journey Time Scenario Comparison (2045 Low Growth DM Vs DS) PM Peak.....	253
Table D.74 Route Based Journey Time Comparison North to South Movements (2045 Low Growth DM Vs DS) AM Peak.....	254
Table D.75 Route Based Journey Time Comparison North to South Movements (2045 Low Growth DM Vs DS) Inter Peak.....	256
Table D.76 Route Based Journey Time Comparison North to South Movements (2045 Low Growth DM Vs DS) PM Peak.....	258
Table D.77 Route Based Journey Time Comparison South to North Movements (2045 Low Growth DM Vs DS) AM Peak.....	260
Table D.78 Route Based Journey Time Comparison South to North Movements (2045 Low Growth DM Vs DS) Inter Peak.....	262
Table D.79 Route Based Journey Time Comparison South to North Movements (2045 Low Growth DM Vs DS) PM Peak.....	264

Table D.80 Convergence and Stability Statistics (Low 2051 DM) .....	267
Table D.81 Convergence and Stability Statistics (Low 2051 DS) .....	268
Table D.82 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (Low 2051 Reference DM and DS Highway Trips in PCUs).....	269
Table D.83 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (Low 2051 Reference DM and DS Hourly PCUs).....	272
Table D.84 HAM Convergence Statistics – 2051 Low Growth DM AM Peak.....	275
Table D.85 HAM Convergence Statistics – 2051 Low Growth DM Inter Peak.....	275
Table D.86 HAM Convergence Statistics – 2051 Low Growth DM PM Peak.....	275
Table D.87 HAM Convergence Statistics – 2051 Low Growth DS AM Peak .....	275
Table D.88 HAM Convergence Statistics – 2051 Low Growth DS Inter Peak.....	276
Table D.89 HAM Convergence Statistics – 2051 Low Growth DS PM Peak .....	276
Table D.90 Select Link Analysis – Summary of Primary Corridors of Movement 2051 Low AM Peak Two-Way Flow.....	279
Table D.91 Select Link Analysis – Summary of Primary Corridors of Movement 2051 Low Inter Peak Two-Way Flow.....	282
Table D.92 Select Link Analysis – Summary of Primary Corridors of Movement 2051 Low PM Peak Two-Way Flow.....	285
Table D.93 Cross River Traffic Flows (NB Flows Approaching TMC) – 2051 Low Growth DM Vs DS (Hourly Flows in PCUs).....	288
Table D.94 Cross River Traffic Flows (NB Flows After TMC) – 2051 Low Growth DM Vs DS (Hourly Flows in PCUs).....	289
Table D.95 Key Corridor Traffic Flows – 2051 Low Growth DM Vs DS (Hourly Flows in PCUs) .....	290
Table D.96 Link Based Journey Time Scenario Comparison (2051 Low Growth DM Vs DS) AM Peak.....	292
Table D.97 Link Based Journey Time Scenario Comparison (2051 Low Growth DM Vs DS) Inter Peak .....	293
Table D.98 Link Based Journey Time Scenario Comparison (2051 Low Growth DM Vs DS) PM Peak .....	294
Table D.99 Route Based Journey Time Comparison North to South Movements (2051 Low Growth DM Vs DS) AM Peak.....	295
Table D.100 Route Based Journey Time Comparison North to South Movements (2051 Low Growth DM Vs DS) Inter Peak .....	297
Table D.101 Route Based Journey Time Comparison North to South Movements (2051 Low Growth DM Vs DS) PM Peak .....	299
Table D.102 Route Based Journey Time Comparison South to North Movements (2051 Low Growth DM Vs DS) AM Peak .....	301
Table D.103 Route Based Journey Time Comparison South to North Movements (2051 Low Growth DM Vs DS) Inter Peak .....	303
Table D.104 Route Based Journey Time Comparison South to North Movements (2051 Low Growth DM Vs DS) PM Peak .....	305
Table D.105 Convergence and Stability Statistics (High 2030 DM) .....	308
Table D.106 Convergence and Stability Statistics (High 2030 DS).....	309
Table D.107 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (High 2030 Reference DM and DS Highway Trips in PCUs).....	310
Table D.108 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (High 2030 Reference DM and DS Hourly PCUs).....	312
Table D.109 HAM Convergence Statistics – 2030 High Growth DM AM Peak.....	316
Table D.110 HAM Convergence Statistics – 2030 High Growth DM Inter Peak .....	316



Table D.111 HAM Convergence Statistics – 2030 High Growth DM PM Peak.....	316
Table D.112 HAM Convergence Statistics – 2030 High Growth DS AM Peak.....	316
Table D.113 HAM Convergence Statistics – 2030 High Growth DS Inter Peak.....	317
Table D.114 HAM Convergence Statistics – 2030 High Growth DS PM Peak.....	317
Table D.115 Select Link Analysis – Summary of Primary Corridors of Movement 2030 High Inter Peak Two-Way Flow.....	323
Table D.116 Select Link Analysis – Summary of Primary Corridors of Movement 2030 High PM Peak Two-Way Flow.....	326
Table D.117 Cross River Traffic Flows (NB Flows Approaching TMC) – 2030 High Growth DM Vs DS (Hourly Flows in PCUs).....	329
Table D.118 Cross River Traffic Flows (NB Flows After TMC) – 2030 High Growth DM Vs DS (Hourly Flows in PCUs).....	330
Table D.119 Key Corridor Traffic Flows – 2030 High Growth DM Vs DS (Hourly Flows in PCUs).....	332
Table D.120 Link Based Journey Time Scenario Comparison (2030 High Growth DM Vs DS) AM Peak.....	334
Table D.121 Link Based Journey Time Scenario Comparison (2030 High Growth DM Vs DS) Inter Peak.....	335
Table D.122 Link Based Journey Time Scenario Comparison (2030 High Growth DM Vs DS) PM Peak.....	336
Table D.123 Route Based Journey Time Comparison North to South Movements (2030 High Growth DM Vs DS) AM Peak.....	337
Table D.124 Route Based Journey Time Comparison North to South Movements (2030 High Growth DM Vs DS) Inter Peak.....	339
Table D.125 Route Based Journey Time Comparison North to South Movements (2030 High Growth DM Vs DS) PM Peak.....	341
Table D.126 Route Based Journey Time Comparison South to North Movements (2030 High Growth DM Vs DS) AM Peak.....	343
Table D.127 Route Based Journey Time Comparison South to North Movements (2030 High Growth DM Vs DS) Inter Peak.....	345
Table D.128 Route Based Journey Time Comparison South to North Movements (2030 High Growth DM Vs DS) PM Peak.....	347
Table D.129 Convergence and Stability Statistics (High 2037 DM).....	350
Table D.130 Convergence and Stability Statistics (High 2037 DS).....	351
Table D.131 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (High 2037 Reference DM and DS Highway Trips in PCUs).....	352
Table D.132 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (High 2037 Reference DM and DS Hourly PCUs).....	355
Table D.133 HAM Convergence Statistics – 2037 High Growth DM AM Peak.....	358
Table D.134 HAM Convergence Statistics – 2037 High Growth DM Inter Peak.....	358
Table D.135 HAM Convergence Statistics – 2037 High Growth DM PM Peak.....	358
Table D.136 HAM Convergence Statistics – 2037 High Growth DS AM Peak.....	358
Table D.137 HAM Convergence Statistics – 2037 High Growth DS Inter Peak.....	359
Table D.138 HAM Convergence Statistics – 2037 High Growth DS PM Peak.....	359
Table D.139 Select Link Analysis – Summary of Primary Corridors of Movement 2037 High AM Peak Two-Way Flow.....	362
Table D.140 Select Link Analysis – Summary of Primary Corridors of Movement 2037 High Inter Peak Two-Way Flow.....	365
Table D.141 Select Link Analysis – Summary of Primary Corridors of Movement 2037 High PM Peak Two-Way Flow.....	368

Table D.142 Cross River Traffic Flows (NB Flows Approaching TMC) – 2037 High Growth DM Vs DS (Hourly Flows in PCUs).....	371
Table D.143 Cross River Traffic Flows (NB Flows After TMC) – 2037 High Growth DM Vs DS (Hourly Flows in PCUs).....	372
Table D.144 Key Corridor Traffic Flows – 2037 High Growth DM Vs DS (Hourly Flows in PCUs) .....	374
Table D.145 Link Based Journey Time Scenario Comparison (2037 High Growth DM Vs DS) AM Peak.....	376
Table D.146 Link Based Journey Time Scenario Comparison (2037 High Growth DM Vs DS) Inter Peak .....	377
Table D.147 Link Based Journey Time Scenario Comparison (2037 High Growth DM Vs DS) PM Peak.....	378
Table D.148 Route Based Journey Time Comparison North to South Movements (2037 High Growth DM Vs DS) AM Peak .....	379
Table D.149 Route Based Journey Time Comparison North to South Movements (2037 High Growth DM Vs DS) Inter Peak.....	381
Table D.150 Route Based Journey Time Comparison North to South Movements (2037 High Growth DM Vs DS) PM Peak .....	383
Table D.151 Route Based Journey Time Comparison South to North Movements (2037 High Growth DM Vs DS) AM Peak .....	385
Table D.152 Route Based Journey Time Comparison South to North Movements (2037 High Growth DM Vs DS) Inter Peak.....	387
Table D.153 Route Based Journey Time Comparison South to North Movements (2037 High Growth DM Vs DS) PM Peak .....	389
Table D.154 Convergence and Stability Statistics (High 2045 DM) .....	392
Table D.155 Convergence and Stability Statistics (High 2045 DS).....	393
Table D.156 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (High 2045 Reference DM and DS Highway Trips in PCUs).....	394
Table D.157 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (High 2045 Reference DM and DS Hourly PCUs).....	397
Table D.158 HAM Convergence Statistics – 2045 High Growth DM AM Peak.....	400
Table D.159 HAM Convergence Statistics – 2045 High Growth DM Inter Peak .....	400
Table D.160 HAM Convergence Statistics – 2045 High Growth DM PM Peak.....	400
Table D.161 HAM Convergence Statistics – 2045 High Growth DS AM Peak.....	400
Table D.162 HAM Convergence Statistics – 2045 High Growth DS Inter Peak.....	401
Table D.163 HAM Convergence Statistics – 2045 High Growth DS PM Peak.....	401
Table D.164 Select Link Analysis – Summary of Primary Corridors of Movement 2045 High AM Peak Two-Way Flow.....	404
Table D.165 Select Link Analysis – Summary of Primary Corridors of Movement 2045 High Inter Peak Two-Way Flow.....	407
Table D.166 Select Link Analysis – Summary of Primary Corridors of Movement 2045 High PM Peak Two-Way Flow.....	410
Table D.167 Cross River Traffic Flows (NB Flows Approaching TMC) – 2045 High Growth DM Vs DS (Hourly Flows in PCUs).....	413
Table D.168 Cross River Traffic Flows (NB Flows After TMC) – 2045 High Growth DM Vs DS (Hourly Flows in PCUs).....	414
Table D.169 Key Corridor Traffic Flows – 2045 High Growth DM Vs DS (Hourly Flows in PCUs) .....	415
Table D.170 Link Based Journey Time Scenario Comparison (2045 High Growth DM Vs DS) AM Peak.....	417

Table D.171 Link Based Journey Time Scenario Comparison (2045 High Growth DM Vs DS) Inter Peak .....	418
Table D.172 Link Based Journey Time Scenario Comparison (2045 High Growth DM Vs DS) PM Peak .....	419
Table D.173 Route Based Journey Time Comparison North to South Movements (2045 High Growth DM Vs DS) AM Peak .....	420
Table D.174 Route Based Journey Time Comparison North to South Movements (2045 High Growth DM Vs DS) Inter Peak .....	422
Table D.175 Route Based Journey Time Comparison North to South Movements (2045 High Growth DM Vs DS) PM Peak .....	424
Table D.176 Route Based Journey Time Comparison South to North Movements (2045 High Growth DM Vs DS) AM Peak .....	426
Table D.177 Route Based Journey Time Comparison South to North Movements (2045 High Growth DM Vs DS) Inter Peak .....	428
Table D.178 Route Based Journey Time Comparison South to North Movements (2045 High Growth DM Vs DS) PM Peak .....	430
Table D.179 Convergence and Stability Statistics (High 2051 DM) .....	433
Table D.180 Convergence and Stability Statistics (High 2051 DS) .....	434
Table D.181 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (High 2051 Reference DM and DS Highway Trips in PCUs) .....	435
Table D.182 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (High 2051 Reference DM and DS Hourly PCUs) .....	438
Table D.183 HAM Convergence Statistics – 2051 High Growth DM AM Peak .....	441
Table D.184 HAM Convergence Statistics – 2051 High Growth DM Inter Peak .....	441
Table D.185 HAM Convergence Statistics – 2051 High Growth DM PM Peak .....	441
Table D.186 HAM Convergence Statistics – 2051 High Growth DS AM Peak .....	441
Table D.187 HAM Convergence Statistics – 2051 High Growth DS Inter Peak .....	442
Table D.188 HAM Convergence Statistics – 2051 High Growth DS PM Peak .....	442
Table D.189 Select Link Analysis – Summary of Primary Corridors of Movement 2051 High AM Peak Two-Way Flow .....	445
Table D.190 Select Link Analysis – Summary of Primary Corridors of Movement 2051 High Inter Peak Two-Way Flow .....	448
Table D.191 Select Link Analysis – Summary of Primary Corridors of Movement 2051 High PM Peak Two-Way Flow .....	451
Table D.192 Cross River Traffic Flows (NB Flows Approaching TMC) – 2051 High Growth DM Vs DS (Hourly Flows in PCUs) .....	454
Table D.193 Cross River Traffic Flows (NB Flows After TMC) – 2051 High Growth DM Vs DS (Hourly Flows in PCUs) .....	455
Table D.194 Key Corridor Traffic Flows – 2051 High Growth DM Vs DS (Hourly Flows in PCUs) .....	456
Table D.195 Link Based Journey Time Scenario Comparison (2051 High Growth DM Vs DS) AM Peak .....	458
Table D.196 Link Based Journey Time Scenario Comparison (2051 High Growth DM Vs DS) Inter Peak .....	459
Table D.197 Link Based Journey Time Scenario Comparison (2051 High Growth DM Vs DS) PM Peak .....	460
Table D.198 Route Based Journey Time Comparison North to South Movements (2051 High Growth DM Vs DS) AM Peak .....	461
Table D.199 Route Based Journey Time Comparison North to South Movements (2051 High Growth DM Vs DS) Inter Peak .....	463

Table D.200 Route Based Journey Time Comparison North to South Movements (2051 High Growth DM Vs DS) PM Peak .....	465
Table D.201 Route Based Journey Time Comparison South to North Movements (2051 High Growth DM Vs DS) AM Peak .....	467
Table D.202 Route Based Journey Time Comparison South to North Movements (2051 High Growth DM Vs DS) Inter Peak.....	469
Table D.203 Route Based Journey Time Comparison South to North Movements (2051 High Growth DM Vs DS) PM Peak .....	471

# 1 Executive summary

- 1.1.1 The Lower Thames Area Model (LTAM) is designed for use in forecasting the impact of providing a new road crossing of the River Thames between Gravesend and Tilbury on the performance of the highway network. LTAM is used to assess the changes in traffic flows, travel times, speeds and levels of congestion on the road network.
- 1.1.2 The methods used to build the LTAM model and the match between the model and the observed traffic flows and journey times are described in the Transport Model Package (Appendix B of the Combined Modelling and Appraisal Report (Application Document 7.7)). This Transport Forecasting Package (TFP) describes how the model has been used to forecast the number of vehicles using the road network in the future, where they are travelling to/from and the journey times on different parts of the road network.
- 1.1.3 The base year LTAM model reflects travel patterns and conditions on the road network for an average weekday in March 2016. The modelled hours are:
- AM peak hour (07:00 – 08:00)
  - Average inter peak hour (09:00 – 15:00)
  - PM peak hour (17:00 – 18:00).
- 1.1.4 The proposed opening year of the A122 Lower Thames Crossing (the Project) is 2030 so this is the first forecast model year. Traffic forecasts were also prepared for 2045 as this is 15 years after opening. The forecasts for 2045 are known as the project design year forecasts and the engineers use these traffic forecasts when designing the Project. Forecasts were also produced for 2037 in order to provide more detailed information on the trajectory of traffic growth and the changes in the time and distance of trips on the network for use in the economic appraisal of the new crossing. A set of traffic forecasts were also produced for 2051 as this is the furthest date into the future for which traffic growth forecasts are published by the Department for Transport (DfT).
- 1.1.5 In each of the forecast years, the representation of the highway network in the model is updated to include all changes to the network that have funding or are more than likely to be built. This includes all schemes included in National Highways Road Investment Strategy (RIS1 (DfT, 2015) and RIS2 (DfT, 2020a)) that have a Preferred Route Announcement and some local authority schemes. These committed future schemes are listed in this report.
- 1.1.6 The growth in the number of car trips in the area is obtained by using the detailed traffic growth forecasts produced by the DfT in their National Trip End Model and published as TEMPro 7.2 traffic growth forecasts (DfT, 2017). More detailed information on the location of new trips in the future is added into the model by explicitly including those major new developments in the study area that are near certain or more than likely to be built. The overall increase in the number of trips for each forecast year in the model matches the overall level of growth predicted by the DfT's National Trip End Model.

- 1.1.7 The percentage growth in light goods vehicles and heavy goods vehicles is taken from the DfT's Road Traffic Forecasts, published in 2018 (RTF18) (DfT, 2018). Again, explicit consideration is given on the amount of commercial vehicles from major new developments in the area that are more than likely to be built in the future. These sites are listed in this report.
- 1.1.8 The LTAM is a variable demand model. For each model year, the model is used to forecast how travellers will change their behaviour as a result of changes in the levels of congestion, the cost of fuel, the fuel efficiency of the fleet and change in incomes (which affects people's ability to afford the trips they wish to make).
- 1.1.9 The transport model is first used to forecast the change in the number of trips in the area by applying the traffic growth factors taken from the DfT's TEMPro software (DfT, 2017) and the DfT Road Traffic Forecasts 2018 (DfT, 2018). These are called the reference case matrices in the TFP.
- 1.1.10 The model is then used to forecast the routes that drivers will take, given the higher levels of traffic on the network and their behavioural responses to the change in the time and cost of their planned trips. These forecasts are prepared using a road network which does not include the Project, but does include those other changes to the network which are more than likely to happen.
- 1.1.11 The modelled behavioural responses included in LTAM are changes to the frequency with which people make the same trip, the possibility of switching to/from rail, changes in the time of day they travel (from say the middle of the day into a peak period) and changing where they travel to/from. In the TFP these forecasts are known as the Do Minimum scenario.
- 1.1.12 The LTAM is then used to model what is likely to happen when the Project is operational. The proposed Project is included into the highway network and again travellers can respond by changing trip frequency, the mode of transport used, the time of day at which they travel and where they travel to/from. These forecasts are known as the Do Something scenario.
- 1.1.13 The outputs from the transport model show how many vehicles are expected to use each part of the road network. This information is then used to predict the environmental impacts of traffic (for example, on noise and air quality). The speed on each section of the network and the length of journeys is calculated in the model. This is used to measure the performance of the road network and to provide details on the location and level of congestion.
- 1.1.14 The TFP provides information on the volume of traffic at key points on the transport network in the future, and journey times on the network. LTAM predicts that when the Project is opened there will be a reduction in the number of vehicles using the Dartford Crossing and a rise in the overall number of vehicles crossing the Thames using either crossing. The traffic flows at the Dartford Crossing and the Lower Thames Crossing are presented in Table 1.1 using passenger car units (PCUs). A heavy goods vehicle (HGV) has a PCU factor of 2.5 as it uses more road space than a car, which has a PCU factor of 1. For the purposes of producing the traffic forecasts it is assumed that charges will be applied at the Lower Thames Crossing and that these will be the same as those charged at the Dartford Crossing.

**Table 1.1 Predicted Peak and Inter-Peak Two-Way Hourly Flows at the Dartford Crossing and the Lower Thames Crossing (PCUs)**

Period	Year	Without the Project	With the Project	
		Dartford Crossing*	Dartford Crossing*	Lower Thames Crossing
AM Peak Hour	2016	14,430	-	
	2030	16,020	13,280	8,040
	2045	16,260	14,870	8,940
Inter-Peak Hour	2016	11,790	-	
	2030	14,410	10,780	6,510
	2045	15,660	12,770	7,590
PM Peak Hour	2016	12,830	-	
	2030	15,310	12,020	7,990
	2045	16,280	13,540	8,830

\* These flows are taken on the approach to the Traffic Management Cell (TMC) at the Dartford Crossing

- 1.1.15 The TFP presents information on which trips will remain using the Dartford Crossing and which trips will use the Project in future. It also describes the changes in flows on other parts of the network, showing which areas experience a decrease in traffic volumes and reduced levels of congestion and those areas where the volume of traffic is likely to rise.
- 1.1.16 The forecasting work undertaken using LTAM has been checked by specialist staff within National Highways while it was carried out to ensure that the work followed the DfT’s guidance on preparing traffic forecasts as set out in Transport Analysis Guidance (TAG). LTAM has been checked by specialist staff within National Highways throughout its development to ensure that it was built following the appropriate technical guidelines and is suitable for use as a base for forecasting the changes in the performance of trips on the strategic highway network and major local roads in the area when a new river crossing is provided between Kent, Thurrock and Essex.

# Annexes



## Annex A Uncertainty Log

- A.1.1 Table A.1 provides details of the planned land use developments included in the Core LTAM forecasts. Table A.2 provides details of the planned transport schemes included in the Core LTAM forecasts.

**Table A.1 Planned Land Use Developments in LTAM**

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Land at Nether Mayne, Kingswood	C3-Dwelling House	Res units	-	275	Basildon	Near Certain	267	275	275	275
Craylands Estates, Fryerns, Basildon	C3-Dwelling House	Res units	-	225	Basildon	Near Certain	225	225	225	225
Laindon Shopping Centre, Laindon Centre	C3-Dwelling House	Res units	-	224	Basildon	Near Certain	224	224	224	224
Trafford House, Station Way, Basildon	C3-Dwelling House	Res units	-	384	Basildon	Near Certain	384	384	384	384
Essex Ford, Cherrydown, Basildon	C3-Dwelling House	Res units	-	208	Basildon	Near Certain	208	208	208	208
Norman Park, between Yarnton Way and Picardy Manorway, Belvedere	C3-Dwelling House	Res units	-	402	Bexley	Near Certain	402	402	402	402
Norman Park, between Yarnton Way and Picardy Manorway, Belvedere	A3-Restaurants and cafes	Sq.m	325	-	Bexley	Near Certain	325	325	325	325
Norman Park, between Yarnton Way and Picardy Manorway, Belvedere	A4-Drinking Establishments	Sq.m	626	-	Bexley	Near Certain	626	626	626	626

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Norman Park, between Yarnton Way and Picardy Manorway, Belvedere	A5-Hot Food Takeaways	Sq.m	325	-	Bexley	Near Certain	325	325	325	325
Norman Park, between Yarnton Way and Picardy Manorway, Belvedere	B1(c)-Light Industry (Business Park)	Sq.m	986	-	Bexley	Near Certain	986	986	986	986
Norman Park, between Yarnton Way and Picardy Manorway, Belvedere	D2-Assembly and Leisure	Sq.m	782	-	Bexley	Near Certain	782	782	782	782
Norman Park, between Yarnton Way and Picardy Manorway, Belvedere	Sui Generis	Sq.m	325	-	Bexley	Near Certain	325	325	325	325
Imperial Gateway, Block D, Norman Park between Yarnton Way and Picardy Manorway, Belvedere	A1-Retail	Sq.m	2,011	-	Bexley	Near Certain	2,011	2,011	2,011	2,011
Land Between Bronze Age Way And Picardy Manorway, Belvedere	B1(c)-Light Industry (Business Park)	Sq.m	6,120	-	Bexley	Near Certain	6,120	6,120	6,120	6,120
Land Between Bronze Age Way And Picardy Manorway, Belvedere	B2-Industry	Sq.m	6,120	-	Bexley	Near Certain	6,120	6,120	6,120	6,120

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Land Between Bronze Age Way And Picardy Manorway, Belvedere	B8-Storage & Distribution	Sq.m	6,120	-	Bexley	Near Certain	6,120	6,120	6,120	6,120
Land Part Of Borax Works, Norman Road	B8-Storage & Distribution	Sq.m	30,100	-	Bexley	Near Certain	30,100	30,100	30,100	30,100
Former Electricity Generating Station, Norman Road	B1(c)-Light Industry (Business Park)	Sq.m	318	-	Bexley	Near Certain	318	318	318	318
Former Electricity Generating Station, Norman Road	B2-Industry	Sq.m	2,132	-	Bexley	Near Certain	2,132	2,132	2,132	2,132
Former Electricity Generating Station, Norman Road	B8-Storage & Distribution	Sq.m	1,430	-	Bexley	Near Certain	1,430	1,430	1,430	1,430
Opus 2, Land Between Crabtree Manorway North And Bronze Age Way, Crabtree Manorway North, Belvedere	B1(c)-Light Industry (Business Park)	Sq.m	4,161	-	Bexley	Near Certain	4,161	4,161	4,161	4,161
Opus 2, Land Between Crabtree Manorway North And Bronze Age Way, Crabtree Manorway North, Belvedere	B2-Industry	Sq.m	4,161	-	Bexley	Near Certain	4,161	4,161	4,161	4,161

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Opus 2, Land Between Crabtree Manorway North And Bronze Age Way, Crabtree Manorway North, Belvedere	B8-Storage & Distribution	Sq.m	4,161	-	Bexley	Near Certain	4,161	4,161	4,161	4,161
Land At Former Nufarm Uk Ltd Site, Crabtree Manorway North, Belvedere	B1(c)-Light Industry (Business Park)	Sq.m	3,231	-	Bexley	Near Certain	3,231	3,231	3,231	3,231
Land At Former Nufarm Uk Ltd Site, Crabtree Manorway North, Belvedere	B8-Storage & Distribution	Sq.m	3,230	-	Bexley	Near Certain	3,230	3,230	3,230	3,230
Policing Facility, Former Nufarm UK Ltd, Crabtree Manorway North	Sui Generis	Sq.m	18,572	-	Bexley	Near Certain	18,572	18,572	18,572	18,572
5 Centurion Way, Erith	B2-Industry	Sq.m	4,507	-	Bexley	Near Certain	4,507	4,507	4,507	4,507
Land At Binsey Walk, Adjacent To Harrow Manorway	C3-Dwelling House	Res units	-	329	Bexley	Near Certain	329	329	329	329
Land At Southmere Village, Binsey Walk, Tavy Bridge, Southmere Drive And Mere Road, Adjacent To Harrow Manorway And Yarnton Way	C3-Dwelling House	Res units	-	525	Bexley	Near Certain	525	525	525	525

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Land At Southmere Village, Binsey Walk, Tavy Bridge, Southmere Drive And Mere Road, Adjacent To Harrow Manorway And Yarnton Way	A1-Retail	Sq.m	2,315	-	Bexley	Near Certain	2,315	2,315	2,315	2,315
Land At Southmere Village, Binsey Walk, Tavy Bridge, Southmere Drive And Mere Road, Adjacent To Harrow Manorway And Yarnton Way	A2-Financial and Professional Services	Sq.m	2,315	-	Bexley	Near Certain	2,315	2,315	2,315	2,315
Land At Southmere Village, Binsey Walk, Tavy Bridge, Southmere Drive And Mere Road, Adjacent To Harrow Manorway And Yarnton Way	A3-Restaurants and cafes	Sq.m	1,013	-	Bexley	Near Certain	1,013	1,013	1,013	1,013
Land At Southmere Village, Binsey Walk, Tavy Bridge, Southmere Drive And Mere Road, Adjacent To Harrow Manorway And Yarnton Way	B1(a)-Business Office	Sq.m	2,315	-	Bexley	Near Certain	2,315	2,315	2,315	2,315

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Land At Southmere Village, Binsey Walk, Tavy Bridge, Southmere Drive And Mere Road, Adjacent To Harrow Manorway And Yarnton Way	D1-Non-residential Institutions	Sq.m	1,206	-	Bexley	Near Certain	1,206	1,206	1,206	1,206
Land At Southmere Village, Binsey Walk, Tavy Bridge, Southmere Drive And Mere Road, Adjacent To Harrow Manorway And Yarnton Way	D2-Assembly and Leisure	Sq.m	746	-	Bexley	Near Certain	746	746	746	746
Land At Coralline Walk, Harrow Manorway	C3-Dwelling House	Res units	-	549	Bexley	Near Certain	549	549	549	549
Land At Coralline Walk, Harrow Manorway	A1-Retail	Sq.m	823	-	Bexley	Near Certain	823	823	823	823
Land At Coralline Walk, Harrow Manorway	A2-Financial and Professional Services	Sq.m	823	-	Bexley	Near Certain	823	823	823	823
Land At Coralline Walk, Harrow Manorway	A3-Restaurants and cafes	Sq.m	343	-	Bexley	Near Certain	343	343	343	343
Land At Coralline Walk, Harrow Manorway	A4-Drinking Establishments	Sq.m	70	-	Bexley	Near Certain	70	70	70	70

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Land At Coralline Walk, Harrow Manorway	B1(a)-Business Office	Sq.m	823	-	Bexley	Near Certain	823	823	823	823
Land At Coralline Walk, Harrow Manorway	D1-Non-residential Institutions	Sq.m	343	-	Bexley	Near Certain	343	343	343	343
Land West Of Sedgemere Road And East Of Harrow Manorway	C3-Dwelling House	Res units	-	219	Bexley	Near Certain	219	219	219	219
Land West Of Sedgemere Road And East Of Harrow Manorway	A1-Retail	Sq.m	823	-	Bexley	Near Certain	823	823	823	823
Land West Of Sedgemere Road And East Of Harrow Manorway	A2-Financial and Professional Services	Sq.m	823	-	Bexley	Near Certain	823	823	823	823
Land West Of Sedgemere Road And East Of Harrow Manorway	A3-Restaurants and cafes	Sq.m	343	-	Bexley	Near Certain	343	343	343	343
Land West Of Sedgemere Road And East Of Harrow Manorway	A4-Drinking Establishments	Sq.m	70	-	Bexley	Near Certain	70	70	70	70
Land West Of Sedgemere Road And East Of Harrow Manorway	B1(a)-Business Office	Sq.m	823	-	Bexley	Near Certain	823	823	823	823



Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Land West Of Sedgemere Road And East Of Harrow Manorway	B2-Industry	Sq.m	343	-	Bexley	Near Certain	343	343	343	343
Erith Park (Formerly Larner Road Estate), Phase 2, Larner Road	C3-Dwelling House	Res units	-	244	Bexley	Near Certain	244	244	244	244
Erith Quarry, Phase 1, 2a & 2b, Fraser Road	C3-Dwelling House	Res units	-	344	Bexley	Near Certain	344	344	344	344
Erith Quarry, Phase 1, 2a & 2b, Fraser Road	D1-Non-residential Institutions	Sq.m	3,670	-	Bexley	Near Certain	3,670	3,670	3,670	3,670
Former Linpac Site And Adjoining Warehouse, Richmer Road	C3-Dwelling House	Res units	-	336	Bexley	Near Certain	336	336	336	336
Electobase lands, Maxim Road	C3-Dwelling House	Res units	-	359	Bexley	More Than Likely	359	359	359	359
Thames House, Thames Road	B8-Storage & Distribution	Sq.m	12,994	-	Bexley	Near Certain	12,994	12,994	12,994	12,994
Coca Cola & Schweppes Beverages Ltd, Cray Road	B2-Industry	Sq.m	9,898	-	Bexley	Near Certain	9,898	9,898	9,898	9,898
Danson Primary School, Danson Lane	D1-Non-residential Institutions	Sq.m	4,427	-	Bexley	Near Certain	4,427	4,427	4,427	4,427

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
20 Broadway, Bexleyheath	A1-Retail	Sq.m	2,865	-	Bexley	Near Certain	2,865	2,865	2,865	2,865
Lidl, 46-60 Upper Wickham Lane, Welling	A1-Retail	Sq.m	3,240	-	Bexley	Near Certain	3,240	3,240	3,240	3,240
Christ Church (Church Of England) Primary School, Lesney Park Road	D1-Non-residential Institutions	Sq.m	3,528	-	Bexley	Near Certain	3,528	3,528	3,528	3,528
Hook Lane Primary School, Churchfield Road	D1-Non-residential Institutions	Sq.m	2,368	-	Bexley	Near Certain	2,368	2,368	2,368	2,368
Queen Marys Hospital, Frogna Avenue	D1-Non-residential Institutions	Sq.m	3,287	-	Bexley	Near Certain	3,287	3,287	3,287	3,287
Satellite Cancer Centre, Former Frogna Centre, Queen Marys Hospital, Frogna Avenue	D1-Non-residential Institutions	Sq.m	2,270	-	Bexley	Near Certain	2,270	2,270	2,270	2,270
Former Bexley Civic Offices, Broadway, Bexleyheath	C3-Dwelling House	Res units	-	518	Bexley	Near Certain	518	518	518	518
Howbury Centre, Slade Green Road	C3-Dwelling House	Res units	-	372	Bexley	Near Certain	372	372	372	372
Sikh Temple, 31 Mitchell Close	D2-Assembly and Leisure	Sq.m	2,021	-	Bexley	Near Certain	2,021	2,021	2,021	2,021

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Parkwood Primary School, Alsike Road	D1-Non-residential Institutions	Sq.m	1,761	-	Bexley	Near Certain	1,761	1,761	1,761	1,761
1 Church Manorway, Erith	B2-Industry	Sq.m	2,050	-	Bexley	Near Certain	2,050	2,050	2,050	2,050
Cleeve Park School, Bexley Lane	D1-Non-residential Institutions	Sq.m	3,308	-	Bexley	Near Certain	3,308	3,308	3,308	3,308
Townley Grammar School For Girls, Townley Road	D1-Non-residential Institutions	Sq.m	1,617	-	Bexley	Near Certain	1,617	1,617	1,617	1,617
Land Adjacent To Former Pirelli Works, Church Manorway	B2-Industry	Sq.m	24,500	-	Bexley	Near Certain	24,500	24,500	24,500	24,500
Chislehurst & Sidcup Grammer School, Hurst Road	D1-Non-residential Institutions	Sq.m	1,695	-	Bexley	Near Certain	1,695	1,695	1,695	1,695
21 Kennet Road, Crayford	B8-Storage & Distribution	Sq.m	7,848	-	Bexley	Near Certain	7,848	7,848	7,848	7,848
21 Kennet Road, Crayford	B1(c)-Light Industry (Business Park)	Sq.m	340	-	Bexley	Near Certain	340	340	340	340
Former BT Crayford TSVC, 1 Roman Way, Crayford	A1-Retail	Sq.m	1,833	-	Bexley	Near Certain	1,833	1,833	1,833	1,833
Former BT Crayford TSVC, 1 Roman Way, Crayford	A3-Restaurants and cafes	Sq.m	419	-	Bexley	Near Certain	419	419	419	419

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Former BT Crayford TSVC, 1 Roman Way, Crayford	D2-Assembly and Leisure	Sq.m	1,636	-	Bexley	Near Certain	1,636	1,636	1,636	1,636
Unit 4 Optima Park, Thames Road	B2-Industry	Sq.m	6,014	-	Bexley	Near Certain	6,014	6,014	6,014	6,014
Dunton Hills Garden Village (ref 200)	C3-Dwelling House	Res units	-	3,750	Brentwood	More Than Likely	TA*	TA*	TA*	TA*
Dunton Hills Garden Village (ref 200)	Employment	Sq.m	32,600	-	Brentwood	More Than Likely	TA*	TA*	TA*	TA*
Dunton Hills Garden Village (ref 200)	Local (school forms per year)	Sq.m	12	-	Brentwood	More Than Likely	TA*	TA*	TA*	TA*
PERI site, Warley Street, Great Warley (ref 228)	B1(a)-Business Office	Sq.m	2,303	-	Brentwood	Near Certain	2,303	2,303	2,303	2,303
PERI site, Warley Street, Great Warley (ref 228)	B2-Industry	Sq.m	2,716	-	Brentwood	Near Certain	2,716	2,716	2,716	2,716
Town Hall, Brentwood (ref 110)	B1(a)-Business Office	Sq.m	1,279	-	Brentwood	Near Certain	1,279	1,279	1,279	1,279
Town Hall, Brentwood (ref 110)	Sui Generis	Sq.m	2,847	-	Brentwood	Near Certain	2,847	2,847	2,847	2,847
Town Hall, Brentwood (ref 110)	C3-Dwelling House	Res units	-	19	Brentwood	Near Certain	19	19	19	19
Crystal Palace Park	C3-Dwelling House	Res units	-	180	Bromley	Near Certain	180	180	180	180
Crystal Palace Park	A1-Retail	Sq.m	6,298	-	Bromley	Near Certain	6,298	6,298	6,298	6,298

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Crystal Palace Park	D1-Non-residential Institutions	Sq.m	830	-	Bromley	Near Certain	830	830	830	830
Crystal Palace Park	D2-Assembly and Leisure	Sq.m	14,500	-	Bromley	Near Certain	14,500	14,500	14,500	14,500
Crystal Palace Park	Sui Generis	Sq.m	926	-	Bromley	Near Certain	926	926	926	926
Multistorey Car Park, Bromley South Central, Simpsons Road	C3-Dwelling House	Res units	-	200	Bromley	Near Certain	200	200	200	200
Multistorey Car Park, Bromley South Central, Simpsons Road	A3-Restaurants and cafes	Sq.m	2,629	-	Bromley	Near Certain	2,629	2,629	2,629	2,629
Multistorey Car Park, Bromley South Central, Simpsons Road	C1-Hotels	Sq.m	4,800	-	Bromley	Near Certain	4,800	4,800	4,800	4,800
Multistorey Car Park, Bromley South Central, Simpsons Road	D2-Assembly and Leisure	Sq.m	2,708	-	Bromley	Near Certain	2,708	2,708	2,708	2,708
Dylon International Ltd., Worsley Bridge Road	C3-Dwelling House	Res units	-	223	Bromley	Near Certain	223	223	223	223
Dylon International Ltd., Worsley Bridge Road	A1-Retail	Sq.m	249	-	Bromley	Near Certain	249	249	249	249

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Dylon International Ltd., Worsley Bridge Road	A3-Restaurants and cafes	Sq.m	113	-	Bromley	Near Certain	113	113	113	113
Dylon International Ltd., Worsley Bridge Road	D1-Non-residential Institutions	Sq.m	624	-	Bromley	Near Certain	624	624	624	624
Orpington Police Station, The Walnuts	C3-Dwelling House	Res units	-	83	Bromley	Near Certain	83	83	83	83
Orpington Police Station, The Walnuts	A1-Retail	Sq.m	167		Bromley	Near Certain	167	167	167	167
Orpington Police Station, The Walnuts	D1-Non-residential Institutions	Sq.m	1,979		Bromley	Near Certain	1,979	1,979	1,979	1,979
Orchard Lodge, William Booth Road	C3-Dwelling House	Res units	-	252	Bromley	Near Certain	252	252	252	252
Cator Park School for Girls, Lennard Road	D1-Non-residential Institutions	Sq.m	2,165	-	Bromley	Near Certain	2,165	2,165	2,165	2,165
Klinger Works, Edgington Way	B2-Industry	Sq.m	9,063	-	Bromley	Near Certain	9,063	9,063	9,063	9,063
Klinger Works, Edgington Way	B8-Storage & Distribution	Sq.m	5,735	-	Bromley	Near Certain	5,735	5,735	5,735	5,735
Land south of Roscommon Way, Canvey Island	A3-Restaurants and cafes	Sq.m	700	-	Castle Point	Near Certain	532	700	700	700
Land south of Roscommon Way, Canvey Island	B1(c)-Light Industry (Business Park)	Sq.m	6,400	-	Castle Point	Near Certain	4,864	6,400	6,400	6,400

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Land south of Roscommon Way, Canvey Island	B2-Industry	Sq.m	12,000	-	Castle Point	Near Certain	9,120	12,000	12,000	12,000
Land south of Roscommon Way, Canvey Island	B8-Storage & Distribution	Sq.m	6,300	-	Castle Point	Near Certain	4,788	6,300	6,300	6,300
Land south of Roscommon Way, Canvey Island	Sui Generis	Sq.m	909	-	Castle Point	Near Certain	691	909	909	909
Land Opposite Morrisons Northwick Road Canvey Island Essex	B1(a)-Business Office	Sq.m	8,928	-	Castle Point	Near Certain	6,785	8,928	8,928	8,928
Land Opposite Morrisons Northwick Road Canvey Island Essex	B2-Industry	Sq.m	4,582	-	Castle Point	Near Certain	3,482	4,582	4,582	4,582
Land Opposite Morrisons Northwick Road Canvey Island Essex	B8-Storage & Distribution	Sq.m	9,955	-	Castle Point	Near Certain	7,566	9,955	9,955	9,955
Land Opposite Morrisons Northwick Road Canvey Island Essex	C1-Hotels	Sq.m	3,300	-	Castle Point	Near Certain	2,508	3,300	3,300	3,300
Land Opposite Morrisons Northwick Road Canvey Island Essex	Sui Generis	Sq.m	2,890	-	Castle Point	Near Certain	2,196	2,890	2,890	2,890

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Thorney Bay Caravan Park, Thorney Bay Road, Canvey Island	C3-Dwelling House	Res units	-	600	Castle Point	Near Certain	456	600	600	600
Roscommon Way, Canvey Island, Essex	A1-Retail	Sq.m	7,920	-	Castle Point	Near Certain	7,920	7,920	7,920	7,920
Dartford Town Centre	C3-Dwelling House	Res units	-	420	Dartford	Near Certain	420	420	420	420
Northern Gateway	C3-Dwelling House	Res units	-	570	Dartford	Near Certain	570	570	570	570
Dartford Town Centre and Northern Gateway	A2-Financial and Professional Services	Sq.m	8,600	-	Dartford	More Than Likely	8,600	8,600	8,600	8,600
Northern Gateway East and Mill Pond	C3-Dwelling House	Res units	-	750	Dartford	Near Certain	750	750	750	750
Northern Gateway East and Mill Pond	A1-Retail	Sq.m	1,500	-	Dartford	Near Certain	1,500	1,500	1,500	1,500
Northern Gateway - GSK North Site	B2-Industry	Sq.m	23,000	-	Dartford	Near Certain	23,000	23,000	23,000	23,000
Bluewater	A1-Retail	Sq.m	30,500	-	Dartford	Near Certain	30,500	30,500	30,500	30,500
The Bridge	C3-Dwelling House	Res units	-	450	Dartford	Near Certain	450	450	450	450
The Bridge	B1(c)-Light Industry (Business Park)	Sq.m	91,000	-	Dartford	Near Certain	91,000	91,000	91,000	91,000
Ebbsfleet - Station Quarter North	C3-Dwelling House	Res units	-	931	Dartford	Near Certain	642	931	931	931



Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Ebbsfleet - Station Quarter North	A3-Restaurants and cafes	Sq.m	12,000	-	Dartford	Near Certain	12,000	12,000	12,000	12,000
Ebbsfleet - Station Quarter North	B1(a)-Business Office	Sq.m	182,657	-	Dartford	Near Certain	138,819	182,657	182,657	182,657
Ebbsfleet - Station Quarter North	D1-Non-residential Institutions	Sq.m	2,000	-	Dartford	Near Certain	1,520	2,000	2,000	2,000
Ebbsfleet - Station Quarter North	D2-Assembly and Leisure	Sq.m	17,191	-	Dartford	Near Certain	13,065	17,191	17,191	17,191
Ebbsfleet - Station Quarter North	C1-Hotels	Sq.m	9,032	-	Dartford	Near Certain	9,032	9,032	9,032	9,032
Ebbsfleet - Station Quarter South	C3-Dwelling House	Res units	-	1,390	Dartford	Near Certain	1,036	1,390	1,390	1,390
Ebbsfleet - Station Quarter South	A3-Restaurants and cafes	Sq.m	3,500	-	Dartford	Near Certain	2,660	3,500	3,500	3,500
Ebbsfleet - Station Quarter South	B1(a)-Business Office	Sq.m	61,035	-	Dartford	Near Certain	46,387	61,035	61,035	61,035
Ebbsfleet - Station Quarter South	D1-Non-residential Institutions	Sq.m	2,500	-	Dartford	Near Certain	1,900	2,500	2,500	2,500
Ebbsfleet - Station Quarter South	D2-Assembly and Leisure	Sq.m	18,195	-	Dartford	Near Certain	13,828	18,195	18,195	18,195
Eastern Quarry	C3-Dwelling House	Res units	-	6,130	Dartford	Near Certain	4,042	6,130	6,130	6,130
Eastern Quarry	A1-Retail	Sq.m	26,000	-	Dartford	Near Certain	19,760	26,000	26,000	26,000
Eastern Quarry	B1(a)-Business Office	Sq.m	120,000	-	Dartford	Near Certain	84,000	120,000	120,000	120,000

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Eastern Quarry	D2-Assembly and Leisure	Sq.m	74,000	-	Dartford	Near Certain	51,800	74,000	74,000	74,000
Eastern Quarry	C1-Hotels	Sq.m	11,000	-	Dartford	Near Certain	11,000	11,000	11,000	11,000
Northfleet West Substation/Ebbsfleet Green	C3-Dwelling House	Res units	-	950	Dartford	Near Certain	950	950	950	950
Northfleet West Substation/Ebbsfleet Green	C1-Hotels	Sq.m	5,000	-	Dartford	Near Certain	5,000	5,000	5,000	5,000
Northfleet West Substation/Ebbsfleet Green	D1-Non-residential Institutions	Sq.m	1,758	-	Dartford	Near Certain	1,758	1,758	1,758	1,758
Northfleet West Substation/Ebbsfleet Green	A1-Retail	Sq.m	339	-	Dartford	Near Certain	237	339	339	339
Northfleet West Substation/Ebbsfleet Green	A3-Restaurants and cafes	Sq.m	920	-	Dartford	Near Certain	920	920	920	920
St James Lane Pit	C3-Dwelling House	Res units	-	850	Dartford	Near Certain	850	850	850	850
Stone	C3-Dwelling House	Res units	-	200	Dartford	Near Certain	200	200	200	200
Crossways	B2-Industry	Sq.m	102,000	-	Dartford	Near Certain	102,000	102,000	102,000	102,000
Lowfield St	C3-Dwelling House	Res units	-	690	Dartford	Near Certain	648	690	690	690
Littlebrook Power Station (Phase 1)	B8-Storage & Distribution	Sq.m	41,800	-	Dartford	Near Certain	41,800	41,800	41,800	41,800

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Littlebrook Power Station (Phase 2 and 3)	B8-Storage & Distribution	Sq.m	120,000	-	Dartford	More Than Likely	120,000	120,000	120,000	120,000
Swanscombe Peninsula (includes Croxton Garry)	C3-Dwelling House	Res units	-	800	Dartford	Near Certain	800	800	800	800
Swanscombe Peninsula (includes Croxton Garry)	B2-Industry	Sq.m	2,300	-	Dartford	Near Certain	2,300	2,300	2,300	2,300
Ebbsfleet Valley (excluding NRQ)	C3-Dwelling House	Res units	-	84	Gravesham	Near Certain	84	84	84	84
Ebbsfleet Valley (Northfleet Rise Quarter)	C3-Dwelling House	Res units	-	164	Gravesham	Near Certain	164	164	164	164
Ebbsfleet: Northfleet Rise Quarter-Post GBC Core Strategy	A1-Retail	Sq.m	2,040	-	Gravesham	Near Certain	2,040	2,040	2,040	2,040
Ebbsfleet: Northfleet Rise Quarter-Post GBC Core Strategy	B1(a)-Business Office	Sq.m	102,000	-	Gravesham	Near Certain	102,000	102,000	102,000	102,000
Ebbsfleet: Northfleet Rise Quarter-Post GBC Core Strategy	D1-Non-residential Institutions	Sq.m	5,950	-	Gravesham	Near Certain	5,950	5,950	5,950	5,950
Ebbsfleet: Northfleet Rise Quarter-Post GBC Core Strategy	C1-Hotels	Sq.m	9,000	-	Gravesham	Near Certain	9,000	9,000	9,000	9,000
Ebbsfleet Valley (Springhead Quarter)	B1(a)-Business Office	Sq.m	4,250	-	Gravesham	Near Certain	4,250	4,250	4,250	4,250

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Ebbsfleet Valley (Springhead Quarter)	A1-Retail	Sq.m	425	-	Gravesham	Near Certain	425	425	425	425
Ebbsfleet Valley (Springhead Quarter)	D1-Non-residential Institutions	Sq.m	8,500	-	Gravesham	Near Certain	8,500	8,500	8,500	8,500
Ebbsfleet Valley (Springhead Quarter)	C3-Dwelling House	Res units	-	405	Gravesham	Near Certain	405	405	405	405
Northfleet Embankment West: Former Cement Works	C3-Dwelling House	Res units	-	532	Gravesham	Near Certain	453	532	532	532
Northfleet Embankment West: Former Cement Works	B1(a)-Business Office	Sq.m	5,355	-	Gravesham	Near Certain	5,355	5,355	5,355	5,355
Northfleet Embankment West: Former Cement Works	B1(c)-Light Industry (Business Park)	Sq.m	11,248	-	Gravesham	Near Certain	11,248	11,248	11,248	11,248
Northfleet Embankment West: Former Cement Works	B2-Industry	Sq.m	11,248	-	Gravesham	Near Certain	11,248	11,248	11,248	11,248
Northfleet Embankment West: Former Cement Works	B8-Storage & Distribution	Sq.m	11,248	-	Gravesham	Near Certain	11,248	11,248	11,248	11,248

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Northfleet Embankment West: Former Cement Works	A1-Retail	Sq.m	723	-	Gravesham	Near Certain	723	723	723	723
Northfleet Embankment West: Former Cement Works	A2-Financial and Professional Services	Sq.m	425	-	Gravesham	Near Certain	425	425	425	425
Northfleet Embankment East (Residential Site) Crete Hall Road Northfleet Gravesend Kent	C3-Dwelling House	Res units	-	598	Gravesham	Near Certain	598	598	598	598
Northfleet Embankment East (Employment Site) Crete Hall Road Northfleet Gravesend Kent	B1(c)-Light Industry (Business Park)	Sq.m	28,000	-	Gravesham	Near Certain	28,000	28,000	28,000	28,000
Northfleet Embankment East (Employment Site) Crete Hall Road Northfleet Gravesend Kent	B1(a)-Business Office	Sq.m	4,626	-	Gravesham	Near Certain	4,626	4,626	4,626	4,626

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Northfleet Embankment East (Employment Site) Crete Hall Road Northfleet Gravesend Kent	A3-Restaurants and cafes	Sq.m	518	-	Gravesham	Near Certain	518	518	518	518
Land At Coldharbour Road Northfleet Gravesend Kent	C3-Dwelling House	Res units	-	400	Gravesham	Near Certain	400	400	400	400
Land South Of Coldharbour Road Northfleet Gravesend Kent	A1-Retail	Sq.m	2,125	-	Gravesham	More Than Likely	2,125	2,125	2,125	2,125
Land South Of Coldharbour Road Northfleet Gravesend Kent	B1(c)-Light Industry (Business Park)	Sq.m	3,210	-	Gravesham	More Than Likely	3,210	3,210	3,210	3,210
Gravesend Town Centre: Heritage Quarter	C3-Dwelling House	Res units	-	141	Gravesham	Near Certain	141	141	141	141
Gravesend Town Centre: Heritage Quarter	A1-Retail	Sq.m	6,239	-	Gravesham	Near Certain	6,239	6,239	6,239	6,239
Gravesend Town Centre: Heritage Quarter	C1-Hotels	Sq.m	2,048	-	Gravesham	Near Certain	2,048	2,048	2,048	2,048
Gravesend Town Centre: Heritage Quarter	A3-Restaurants and cafes	Sq.m	1,352	-	Gravesham	Near Certain	1,352	1,352	1,352	1,352

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Gravesend Town Centre: Heritage Quarter	B1(a)-Business Office	Sq.m	255	-	Gravesham	Near Certain	255	255	255	255
Northeast Gravesend	C3-Dwelling House	Res units	-	156	Gravesham	Near Certain	156	156	156	156
Northeast Gravesend	B2-Industry	Sq.m	14,935	-	Gravesham	Near Certain	14,935	14,935	14,935	14,935
Northeast Gravesend	D2-Assembly and Leisure	Sq.m	3,400	-	Gravesham	Near Certain	3,400	3,400	3,400	3,400
Land at Grove Road	C3-Dwelling House	Res units	-	320	Gravesham	More Than Likely	320	320	320	320
Ebbsfleet United FC, Stonebridge Road	C1-Hotels	Sq.m	1,833	-	Gravesham	Near Certain	1,833	1,833	1,833	1,833
Harold Wood Hospital Phase 2A and 2B	C3-Dwelling House	Res units	-	245	Havering	Near Certain	245	245	245	245
Angel Way Retail Park	C3-Dwelling House	Res units	-	350	Havering	More Than Likely	350	350	350	350
Angel Way Retail Park	C1-Hotels	Sq.m	2,100	-	Havering	More Than Likely	2,100	2,100	2,100	2,100
Angel Way Retail Park	A1-Retail	Sq.m	3,800	-	Havering	More Than Likely	3,800	3,800	3,800	3,800
Former Somerfield Depot	C3-Dwelling House	Res units	-	497	Havering	Near Certain	497	497	497	497
St Georges Hospital	C3-Dwelling House	Res units	-	290	Havering	Near Certain	290	290	290	290

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
St Georges Hospital	D1-Non-residential Institutions	Sq.m	3,000	-	Havering	More Than Likely	3,000	3,000	3,000	3,000
Dover's Corner	C3-Dwelling House	Res units	-	396	Havering	Near Certain	396	396	396	396
Beverley Bungalow, North Road	D2-Assembly and Leisure	Sq.m	3,390	-	Havering	Near Certain	3,390	3,390	3,390	3,390
Avocet Business Park (Formerly Denver Industrial Park)	B1(a)-Business Office	Sq.m	3,084	-	Havering	Near Certain	3,084	3,084	3,084	3,084
Avocet Business Park (Formerly Denver Industrial Park)	B8-Storage & Distribution	Sq.m	41,006	-	Havering	Near Certain	41,006	41,006	41,006	41,006
22 Lamson Road Rainham	B1(c)-Light Industry (Business Park)	Sq.m	4,140	-	Havering	Near Certain	4,140	4,140	4,140	4,140
22 Lamson Road Rainham	B2-Industry	Sq.m	4,000	-	Havering	Near Certain	4,000	4,000	4,000	4,000
Plot 6 Beam Reach 5 Business Park Consul Avenue	B1(c)-Light Industry (Business Park)	Sq.m	2,218	-	Havering	Near Certain	2,218	2,218	2,218	2,218
Plot 6 Beam Reach 5 Business Park Consul Avenue	B2-Industry	Sq.m	739	-	Havering	Near Certain	739	739	739	739
Plot 6 Beam Reach 5 Business Park Consul Avenue	B8-Storage & Distribution	Sq.m	739	-	Havering	Near Certain	739	739	739	739



Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Plot 10&11 Beam Reach 5 Business Park Consul Avenue	B1(c)-Light Industry (Business Park)	Sq.m	5,510	-	Havering	Near Certain	5,510	5,510	5,510	5,510
Plot 10&11 Beam Reach 5 Business Park Consul Avenue	B2-Industry	Sq.m	5,510	-	Havering	Near Certain	5,510	5,510	5,510	5,510
Plot 10&11 Beam Reach 5 Business Park Consul Avenue	B8-Storage & Distribution	Sq.m	5,510	-	Havering	Near Certain	5,510	5,510	5,510	5,510
Plot 12 Beam Reach 5 Rainham	B1(c)-Light Industry (Business Park)	Sq.m	9,678	-	Havering	Near Certain	9,678	9,678	9,678	9,678
Unit 8 Beam Reach Coldharbour Lane Rainham	B8-Storage & Distribution	Sq.m	3,277	-	Havering	Near Certain	3,277	3,277	3,277	3,277
Unit 27, Beam Reach 8 Ferry Lane South RAINHAM	B1(c)-Light Industry (Business Park)	Sq.m	3,100	-	Havering	Near Certain	3,100	3,100	3,100	3,100
Unit 25 Beam Reach 8c Rainham	B1(c)-Light Industry (Business Park)	Sq.m	280	-	Havering	Near Certain	280	280	280	280
Unit 25 Beam Reach 8c Rainham	B8-Storage & Distribution	Sq.m	6,745	-	Havering	Near Certain	6,745	6,745	6,745	6,745
Havering College Of Further And Higher Education	D1-Non-residential Institutions	Sq.m	2,767	-	Havering	Near Certain	2,767	2,767	2,767	2,767

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Car Park Associated With Chaucer House (Romford Leisure Centre)	D2-Assembly and Leisure	Sq.m	8,081	-	Havering	Near Certain	8,081	8,081	8,081	8,081
Liberty Shopping Centre, 44-52	A1-Retail	Sq.m	10,528	-	Havering	Near Certain	10,528	10,528	10,528	10,528
Waterloo Road (and Queen Street)	C3-Dwelling House	Res units	-	170	Havering	More Than Likely	170	170	170	170
Land at Rom Valley Way	C3-Dwelling House	Res units	-	620	Havering	Near Certain	620	620	620	620
Ingrebourne Links Golf Course New Road Wennington	D2-Assembly and Leisure	Sq.m	2,334	-	Havering	Near Certain	2,334	2,334	2,334	2,334
Hacton Primary School Central Drive	D1-Non-residential Institutions	Sq.m	3,324	-	Havering	Near Certain	3,324	3,324	3,324	3,324
Suttons Junior and Mixed Infants School Suttons Lane Hornchurch	D1-Non-residential Institutions	Sq.m	2,197	-	Havering	Near Certain	2,197	2,197	2,197	2,197
Block 8 Former Oldchurch Hospital Union Road Romford	D1-Non-residential Institutions	Sq.m	2,934	-	Havering	Near Certain	2,934	2,934	2,934	2,934
Former King's Wood School Settle Road Romford	D1-Non-residential Institutions	Sq.m	1,786	-	Havering	Near Certain	1,786	1,786	1,786	1,786
131 Gooshays Drive Romford	A1-Retail	Sq.m	2,289	-	Havering	Near Certain	2,289	2,289	2,289	2,289

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
25-29 Market Place Romford	C1-Hotels	Sq.m	3,366	-	Havering	Near Certain	3,366	3,366	3,366	3,366
Mawney Infant School Mawney Road ROMFORD	D1-Non-residential Institutions	Sq.m	3,164	-	Havering	Near Certain	3,164	3,164	3,164	3,164
31 High Street Hornchurch	A1-Retail	Sq.m	2,747	-	Havering	Near Certain	2,747	2,747	2,747	2,747
Creek Way Rainham	B2-Industry	Sq.m	4,865	-	Havering	Near Certain	4,865	4,865	4,865	4,865
Dunelm Romford Eastern Avenue West ROMFORD	A1-Retail	Sq.m	2,382	-	Havering	Near Certain	2,382	2,382	2,382	2,382
Marshalls Park School Pettits Lane ROMFORD	D1-Non-residential Institutions	Sq.m	1,722	-	Havering	Near Certain	1,722	1,722	1,722	1,722
Hornchurch Sports Centre Harrow Lodge Park Hornchurch Road	D2-Assembly and Leisure	Sq.m	6,150	-	Havering	Near Certain	6,150	6,150	6,150	6,150
Nos. 35 - 87 (inclusive) New Road Rainham	C3-Dwelling House	Res units	-	248	Havering	More Than Likely	248	248	248	248
49-87 New Road & Able House, Askwith Road Rainham	C3-Dwelling House	Res units	-	207	Havering	More Than Likely	207	207	207	207
Beam Park Former Ford Assembly Plant Site New Road (A1306) Rainham	C3-Dwelling House	Res units	-	733	Havering	More Than Likely	733	733	733	733

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Beam Park Former Ford Assembly Plant Site New Road (A1306) Rainham	A1-Retail	Sq.m	1,130	-	Havering	More Than Likely	1,130	1,130	1,130	1,130
Beam Park Former Ford Assembly Plant Site New Road (A1306) Rainham	D1-Non-residential Institutions	Sq.m	1,500	-	Havering	More Than Likely	1,500	1,500	1,500	1,500
Beam Park Former Ford Assembly Plant Site New Road (A1306) Rainham	D1-Non-residential Institutions	Sq.m	8,000	-	Havering	More Than Likely	1,500	1,500	1,500	1,500
Redden Court School Cotswold Road Romford	D1-Non-residential Institutions	Sq.m	2,157	-	Havering	More Than Likely	2,157	2,157	2,157	2,157
Hall Mead School Marlborough Gardens Upminster	D1-Non-residential Institutions	Sq.m	4,698	-	Havering	Near Certain	4,698	4,698	4,698	4,698
Royal Liberty School Upper Brentwood Road Romford	D1-Non-residential Institutions	Sq.m	4,341	-	Havering	More Than Likely	4,341	4,341	4,341	4,341
Freightmaster Estate Coldharbour Lane Rainham	B8-Storage & Distribution	Sq.m	43,000	-	Havering	More Than Likely	43,000	43,000	43,000	43,000
East of Hermitage Lane	C3-Dwelling House	Res units	-	500	Maidstone	Near Certain	440	500	500	500
West of Hermitage Lane	C3-Dwelling House	Res units	-	250	Maidstone	Near Certain	250	250	250	250

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Langley Park, Sutton Road, Boughton Monchelsea	C3-Dwelling House	Res units	-	600	Maidstone	Near Certain	600	600	600	600
Langley Park, Sutton Road, Boughton Monchelsea	A1-Retail	Sq.m	1,500	-	Maidstone	Near Certain	1,500	1,500	1,500	1,500
Langley Park, Sutton Road, Boughton Monchelsea	D1-Non-residential Institutions	Sq.m	2,500	-	Maidstone	Near Certain	2,500	2,500	2,500	2,500
Land North Of Bicknor Wood, Sutton Road	C3-Dwelling House	Res units	-	250	Maidstone	Near Certain	250	250	250	250
Land At Bicknor Farm, Sutton Road	C3-Dwelling House	Res units	-	271	Maidstone	Near Certain	271	271	271	271
Land South of Sutton Road, Langley	C3-Dwelling House	Res units	-	800	Maidstone	Near Certain	584	800	800	800
Springfield Park, Royal Engineers' Road	C3-Dwelling House	Res units	-	192	Maidstone	Near Certain	192	192	192	192
KCC Springfield Library Site, Sandling Road	C3-Dwelling House	Res units	-	114	Maidstone	Near Certain	114	114	114	114
Land adjacent to Royal Engineers' Road	C3-Dwelling House	Res units	-	310	Maidstone	Near Certain	310	310	310	310
Land Off Farleigh Hill Tovil Kent	C3-Dwelling House	Res units	-	272	Maidstone	Near Certain	259	272	272	272

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Land Rear Of Police Headquarters, Sutton Road	C3-Dwelling House	Res units	-	112	Maidstone	Near Certain	112	112	112	112
Land To Rear Of Kent Police Training School, Sutton Road	C3-Dwelling House	Res units	-	90	Maidstone	Near Certain	90	90	90	90
Maidstone East and former Royal Mail Sorting Office, Sandling Road, Maidstone	B1(a)-Business Office	Sq.m	4,000	-	Maidstone	Near Certain	3,122	4,000	4,000	4,000
Land Between Mill Bank, Ulcombe Road & Kings Road	C3-Dwelling House	Res units	-	220	Maidstone	Near Certain	220	220	220	220
Hen and Duckhurst Farm, Marden Road, Staplehurst	C3-Dwelling House	Res units	-	250	Maidstone	Near Certain	250	250	250	250
Fishers Farm, Fishers Road, Staplehurst	C3-Dwelling House	Res units	-	352	Maidstone	Near Certain	352	352	352	352
Forstal Lane, Coxheath	C3-Dwelling House	Res units	-	210	Maidstone	Near Certain	210	210	210	210
Newnham Park, Bearsted Road, Maidstone	A1/A2/A3	Sq.m	1,000	-	Maidstone	More Than Likely	400	1,000	1,000	1,000
Newnham Park, Bearsted Road, Maidstone	B1(a)-Business Office	Sq.m	4,940	-	Maidstone	More Than Likely	988	3,458	4,940	4,940

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Newnham Park, Bearsted Road, Maidstone	B1(b)-Research & Development	Sq.m	19,676	-	Maidstone	More Than Likely	3,935	13,773	19,676	19,676
Newnham Park, Bearsted Road, Maidstone	D1-Non-residential Institutions	Sq.m	29,650	-	Maidstone	More Than Likely	10,427	22,441	29,650	29,650
Newnham Park, Bearsted Road, Maidstone	C2-Residential institutions	Sq.m	12,045	-	Maidstone	More Than Likely	5,786	9,698	12,045	12,045
Newnham Park, Bearsted Road, Maidstone	C2-Residential institutions	Res units	-	650	Maidstone	More Than Likely	130	455	650	650
Newnham Park, Bearsted Road, Maidstone	D1-Non-residential Institutions	Sq.m	26,250	-	Maidstone	More Than Likely	5,250	18,375	26,250	26,250
West of Barradale Farm, Maidstone Road, Headcorn	B2-Industry	Sq.m	2,750	-	Maidstone	More Than Likely	1,681	2,750	2,750	2,750
West of Barradale Farm, Maidstone Road, Headcorn	B8-Storage & Distribution	Sq.m	2,750	-	Maidstone	More Than Likely	1,681	2,750	2,750	2,750
West of Wheelbarrow Industrial Estate, Pattenden Lane, Marden	B2-Industry	Sq.m	4,307	-	Maidstone	Near Certain	6,384	9,500	9,500	9,500
Woodcut Farm, Bearsted Road, Bearsted	B1(a)-Business Office	Sq.m	10,000	-	Maidstone	Near Certain	4,000	10,000	10,000	10,000

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Woodcut Farm, Bearsted Road, Bearsted	B1(c)-Light Industry (Business Park)	Sq.m	12,840	-	Maidstone	Near Certain	5,136	12,840	12,840	12,840
Woodcut Farm, Bearsted Road, Bearsted	B8-Storage & Distribution	Sq.m	22,455	-	Maidstone	Near Certain	8,982	22,455	22,455	22,455
Temple Waterfront Between Knight Road and Roman Way Strood	C3-Dwelling House	Res units	-	620	Medway	Near Certain	420	500	620	620
Temple Waterfront Between Knight Road and Roman Way Strood	A1-Retail	Sq.m	1,800	-	Medway	Near Certain	1,800	1,800	1,800	1,800
Temple Waterfront Between Knight Road and Roman Way Strood	B1(a)-Business Office	Sq.m	3,200	-	Medway	Near Certain	3,200	3,200	3,200	3,200
Temple Waterfront Between Knight Road and Roman Way Strood	D1-Non-residential Institutions	Sq.m	100	-	Medway	Near Certain	100	100	100	100
Temple Waterfront Between Knight Road and Roman Way Strood	D2-Assembly and Leisure	Sq.m	100	-	Medway	Near Certain	100	100	100	100
Land at St Mary's Island, Maritime Way, Chatham Maritime	C3-Dwelling House	Res units	-	310	Medway	Near Certain	310	310	310	310



Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Horsted Park, Former Midkent College Site, Maidstone Road	C3-Dwelling House	Res units	-	265	Medway	Near Certain	265	265	265	265
Colonial Mutual House, Quayside, Chatham Maritime	C3-Dwelling House	Res units	-	253	Medway	Near Certain	253	253	253	253
Former Kitchener Barracks, Dock Road, Chatham	C3-Dwelling House	Res units	-	302	Medway	Near Certain	302	302	302	302
Rochester Riverside, Corporation Street, Rochester	C3-Dwelling House	Res units	-	1,400	Medway	Near Certain	1,201	1,400	1,400	1,400
Rochester Riverside, Corporation Street, Rochester	A1-Retail	Sq.m	1,135	-	Medway	Near Certain	1,135	1,135	1,135	1,135
Rochester Riverside, Corporation Street, Rochester	B1(a)-Business Office	Sq.m	200	-	Medway	Near Certain	200	200	200	200
Rochester Riverside, Corporation Street, Rochester	C1-Hotels	Sq.m	2,924	-	Medway	Near Certain	2,924	2,924	2,924	2,924
Rochester Riverside, Corporation Street, Rochester	D1-Non-residential Institutions	Sq.m	550	-	Medway	Near Certain	550	550	550	550
Rochester Riverside, Corporation Street, Rochester	D2-Assembly and Leisure	Sq.m	200	-	Medway	Near Certain	200	200	200	200

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
CPI Books Ltd Lordswood Industrial Estate Revene Road Lordswood	B2-Industry	Sq.m	8,244	-	Medway	Near Certain	8,244	8,244	8,244	8,244
CPI Books Ltd Lordswood Industrial Estate Revene Road Lordswood	B1(a)-Business Office	Sq.m	634	-	Medway	Near Certain	634	634	634	634
Land at Otterham Quay Lane Rainham	C3-Dwelling House	Res units	-	300	Medway	Near Certain	300	300	300	300
Gibraltar Farm Ham Lane Lordswood	C3-Dwelling House	Res units	-	450	Medway	Near Certain	435	450	450	450
South of Ratcliffe Highway Former Sports Ground Bells Lane Hoo	C3-Dwelling House	Res units	-	232	Medway	Near Certain	232	232	232	232
Land at Chatham Docks Pier Road Gillingham	C3-Dwelling House	Res units	-	950	Medway	Near Certain	875	950	950	950
Land at Chatham Docks Pier Road Gillingham	C1-Hotels	Sq.m	4,990	-	Medway	Near Certain	4,990	4,990	4,990	4,990
Land at Chatham Docks Pier Road Gillingham	A1-Retail	Sq.m	2,763	-	Medway	Near Certain	2,763	2,763	2,763	2,763
Land at Chatham Docks Pier Road Gillingham	D1-Non- residential Institutions	Sq.m	25,153	-	Medway	Near Certain	25,153	25,153	25,153	25,153

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Land at Chatham Docks Pier Road Gillingham	D2-Assembly and Leisure	Sq.m	20,953	-	Medway	Near Certain	20,953	20,953	20,953	20,953
Land at Chatham Docks Pier Road Gillingham	Sui Generis	Sq.m	23,750	-	Medway	Near Certain	23,750	23,750	23,750	23,750
Walnut Tree Farm 155 Lower Rainham Road Rainham	C1-Hotels	Sq.m	2,199	-	Medway	Near Certain	2,199	2,199	2,199	2,199
Premier Inn Medway Valley Park Chariot Way Strood	C1-Hotels	Sq.m	1,533	-	Medway	Near Certain	1,533	1,533	1,533	1,533
Remainder of phase 2 and phase 3 Hempstead Valley Shopping Centre Hempstead Valley Drive Hempstead	A1-Retail	Sq.m	5,250	-	Medway	Near Certain	5,250	5,250	5,250	5,250
Chatham Waterfront Medway Street Chatham	A1-Retail	Sq.m	1,645	-	Medway	Near Certain	1,645	1,645	1,645	1,645
Chatham Waterfront Medway Street Chatham	C3-Dwelling House	Res units	-	115	Medway	Near Certain	115	115	115	115
Land north east of Kingsnorth Industrial Estate Eschol Road Hoo	B1(c)-Light Industry (Business Park)	Sq.m	20,752	-	Medway	Near Certain	20,752	20,752	20,752	20,752

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Land north east of Kingsnorth Industrial Estate Eschol Road Hoo	B2-Industry	Sq.m	115,120	-	Medway	Near Certain	53,722	92,096	115,120	115,120
Land north east of Kingsnorth Industrial Estate Eschol Road Hoo	B8-Storage & Distribution	Sq.m	115,120	-	Medway	Near Certain	53,722	92,096	115,120	115,120
Buildings 208 & 209 Kingsnorth Industrial Estate Eschol Road Kingsnorth	Sui Generis	Sq.m	5,010	-	Medway	Near Certain	5,010	5,010	5,010	5,010
Phase 1 Zone D National Grid Land Grain Road Grain	B1(c)-Light Industry (Business Park)	Sq.m	5,670	-	Medway	Near Certain	2,268	5,670	5,670	5,670
Phase 1 Zone D National Grid Land Grain Road Grain	B2-Industry	Sq.m	5,550	-	Medway	Near Certain	2,220	5,550	5,550	5,550
Phase 1 Zone D National Grid Land Grain Road Grain	B8-Storage & Distribution	Sq.m	5,550	-	Medway	Near Certain	2,220	5,550	5,550	5,550
Former Military Site Upnor Road Lower Upnor	B1(c)-Light Industry (Business Park)	Sq.m	3,905	-	Medway	Near Certain	3,905	3,905	3,905	3,905
3 Acre Site Medway Valley Park Roman Way Strood	B2-Industry	Sq.m	1,750	-	Medway	Near Certain	1,750	1,750	1,750	1,750

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
3 Acre Site Medway Valley Park Roman Way Strood	B1(a)-Business Office	Sq.m	1,750	-	Medway	Near Certain	1,750	1,750	1,750	1,750
Phase 2 Land off Bailey Drive Gillingham	B8-Storage & Distribution	Sq.m	5,342	-	Medway	Near Certain	5,342	5,342	5,342	5,342
Croneens Car Park Railway Street Gillingham	D1-Non-residential Institutions	Sq.m	3,858	-	Medway	Near Certain	3,858	3,858	3,858	3,858
Medway Maritime Hospital Windmill Road Gillingham	D1-Non-residential Institutions	Sq.m	1,850	-	Medway	Near Certain	1,850	1,850	1,850	1,850
Royal Sovereign House Quayside Chatham Maritime	D1-Non-residential Institutions	Sq.m	3,065	-	Medway	Near Certain	3,065	3,065	3,065	3,065
Machine Shop 8 Chatham Maritime	D2-Assembly and Leisure	Sq.m	2,560	-	Medway	Near Certain	2,560	2,560	2,560	2,560
Former Tesco Store The Brook Chatham	D2-Assembly and Leisure	Sq.m	3,532	-	Medway	Near Certain	3,532	3,532	3,532	3,532
Fort Halstead (GEA) Crow Drive Halstead Sevenoaks KENT TN14 7BU	C3-Dwelling House	Res units	-	450	Sevenoaks	Near Certain	450	450	450	450
Fort Halstead (GEA) Crow Drive Halstead Sevenoaks KENT TN14 7BU	C1-Hotels	Sq.m	2,856	-	Sevenoaks	Near Certain	2,856	2,856	2,856	2,856

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Fort Halstead (GEA) Crow Drive Halstead Sevenoaks KENT TN14 7BU	A1-Retail	Sq.m	510	-	Sevenoaks	Near Certain	510	510	510	510
Fort Halstead (GEA) Crow Drive Halstead Sevenoaks KENT TN14 7BU	D1-Non-residential Institutions	Sq.m	2,635	-	Sevenoaks	Near Certain	2,635	2,635	2,635	2,635
Fort Halstead (GEA) Crow Drive Halstead Sevenoaks KENT TN14 7BU	D2-Assembly and Leisure	Sq.m	255	-	Sevenoaks	Near Certain	255	255	255	255
Fort Halstead (GEA) Crow Drive Halstead Sevenoaks KENT TN14 7BU	B1(a)-Business Office	Sq.m	11,900	-	Sevenoaks	Near Certain	11,900	11,900	11,900	11,900
Fort Halstead (GEA) Crow Drive Halstead Sevenoaks KENT TN14 7BU	B2-Industry	Sq.m	11,050	-	Sevenoaks	Near Certain	11,050	11,050	11,050	11,050
Land West Of Enterprise Way and St. Johns Way, Edenbridge	C3-Dwelling House	Res units	-	300	Sevenoaks	Near Certain	300	300	300	300
West Kent Cold Store Rye Lane Dunton Green Sevenoaks Kent TN14 5HD	C3-Dwelling House	Res units	-	500	Sevenoaks	Near Certain	500	500	500	500

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
West Kent Cold Store Rye Lane Dunton Green Sevenoaks Kent TN14 5HD	B1(a)-Business Office	Sq.m	2,300	-	Sevenoaks	Near Certain	2,300	2,300	2,300	2,300
West Kent Cold Store Rye Lane Dunton Green Sevenoaks Kent TN14 5HD	D1-Non-residential Institutions	Sq.m	460	-	Sevenoaks	Near Certain	460	460	460	460
Aveley Village Extension, South of Aveley Bypass, Aveley	C3-Dwelling House	Res units	-	340	Thurrock	Near Certain	340	340	340	340
Bata Field, East Tilbury	C3-Dwelling House	Res units	-	299	Thurrock	Near Certain	299	299	299	299
Land at Thurrock Technical College, Wood View, Grays	C3-Dwelling House	Res units	-	362	Thurrock	Near Certain	362	362	362	362
Arisdale Industrial Estate (remainder), South Ockendon	C3-Dwelling House	Res units	-	558	Thurrock	Near Certain	558	558	558	558
Land at St Cleres golf club Stanford-le-Hope	C3-Dwelling House	Res units	-	350	Thurrock	Near Certain	350	350	350	350
Purfleet Centre Regeneration	C3-Dwelling House	Res units	-	2,850	Thurrock	More Than Likely	2,850	2,850	2,850	2,850
Purfleet Centre Regeneration	A1-Retail	Sq.m	8,360	-	Thurrock	More Than Likely	8,360	8,360	8,360	8,360
Purfleet Centre Regeneration	A3-Restaurants and cafes	Sq.m	4,960	-	Thurrock	More Than Likely	4,960	4,960	4,960	4,960

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Purfleet Centre Regeneration	A4-Drinking Establishments	Sq.m	855	-	Thurrock	More Than Likely	855	855	855	855
Purfleet Centre Regeneration	B1(a)-Business Office	Sq.m	3,483	-	Thurrock	More Than Likely	3,483	3,483	3,483	3,483
Purfleet Centre Regeneration	B1(b)-Research & Development	Sq.m	3,483	-	Thurrock	More Than Likely	3,483	3,483	3,483	3,483
Purfleet Centre Regeneration	B1(c)-Light Industry (Business Park)	Sq.m	3,483	-	Thurrock	More Than Likely	3,483	3,483	3,483	3,483
Purfleet Centre Regeneration	C1-Hotels	Sq.m	19,000	-	Thurrock	More Than Likely	19,000	19,000	19,000	19,000
Purfleet Centre Regeneration	D1-Non-residential Institutions	Sq.m	17,385	-	Thurrock	More Than Likely	17,385	17,385	17,385	17,385
Purfleet Centre Regeneration	D2-Assembly and Leisure	Sq.m	5,890	-	Thurrock	More Than Likely	5,890	5,890	5,890	5,890
London Gateway Logistics Park Plot 1020, 1070, 1080, 3010, 4010 & 4020a	B1(a)-Business Office	Sq.m	11,083	-	Thurrock	Near Certain	11,083	11,083	11,083	11,083
London Gateway Logistics Park Plot 1020, 1070, 1080, 3010, 4010 & 4020a	B1(c)-Light Industry (Business Park)	Sq.m	2,569	-	Thurrock	Near Certain	2,569	2,569	2,569	2,569
London Gateway Logistics Park Plot 1020, 1070, 1080, 3010, 4010 & 4020a	B2-Industry	Sq.m	3,295	-	Thurrock	Near Certain	3,295	3,295	3,295	3,295



Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
London Gateway Logistics Park Plot 1020, 1070, 1080, 3010, 4010 & 4020a	B8-Storage & Distribution	Sq.m	126,220	-	Thurrock	Near Certain	126,220	126,220	126,220	126,220
Tilbury London Distribution Park	B8-Storage & Distribution	Sq.m	204,820	-	Thurrock	Near Certain	204,820	204,820	204,820	204,820
Land to East of Euclid Way and South of West Thurrock Way (West Thurrock Green)	A1-Retail	Sq.m	6,694	-	Thurrock	Near Certain	6,694	6,694	6,694	6,694
Land to East of Euclid Way and South of West Thurrock Way (West Thurrock Green)	C3-Dwelling House	Res units	-	428	Thurrock	Near Certain	428	428	428	428
Northlake, Lakeside Basin	C3-Dwelling House	Res units	-	2,500	Thurrock	More Than Likely	2,500	2,500	2,500	2,500
Northlake, Lakeside Basin	A1-Retail	Sq.m	400	-	Thurrock	More Than Likely	400	400	400	400
Northlake, Lakeside Basin	A3-Restaurants and cafes	Sq.m	100	-	Thurrock	More Than Likely	100	100	100	100
Northlake, Lakeside Basin	D1-Non-residential Institutions	Sq.m	3,690	-	Thurrock	More Than Likely	3,690	3,690	3,690	3,690
Tilbury 2	B8-Storage & Distribution	Sq.m	10,200	-	Thurrock	Near Certain	10,200	10,200	10,200	10,200

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Former Peter's Pit & Peter's Works Site Hall	C3-Dwelling House	Res units	-	1,059	Tonbridge&Malling	Near Certain	1,059	1,059	1,059	1,059
Kings Hill Phase 3 Kings Hill West Malling Kent	C3-Dwelling House	Res units	-	635	Tonbridge&Malling	Near Certain	635	635	635	635
Kings Hill Phase 3 Kings Hill West Malling Kent	D1-Non-residential Institutions	Sq.m	2,405	-	Tonbridge&Malling	Near Certain	2,405	2,405	2,405	2,405
Kings Hill Phase 3 Kings Hill West Malling Kent	D2-Assembly and Leisure	Sq.m	1,275	-	Tonbridge&Malling	Near Certain	1,275	1,275	1,275	1,275
Former Holborough Quarry	C3-Dwelling House	Res units	-	349	Tonbridge&Malling	Near Certain	349	349	349	349
Leybourne Grange	C3-Dwelling House	Res units	-	440	Tonbridge&Malling	Near Certain	440	440	440	440
DHL Supply Chain Warehouse, 20/20 Industrial Estate, Laverstore Road, ME16 0LE	B8-Storage & Distribution	Sq.m	21,000	-	Tonbridge&Malling	Near Certain	21,000	21,000	21,000	21,000
Former Airstation, Gibson Drive, ME19 4LX	B1(a)-Business Office	Sq.m	16,084	-	Tonbridge&Malling	Near Certain	16,084	16,084	16,084	16,084
Vantage Point, Holborough Road, ME6 5SL	B1(a)-Business Office	Sq.m	4,700	-	Tonbridge&Malling	Near Certain	4,700	4,700	4,700	4,700

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Vantage Point, Holborough Road, ME6 5SL	B1(c)-Light Industry (Business Park)	Sq.m	7,300	-	Tonbridge&Malling	Near Certain	7,300	7,300	7,300	7,300
London Gateway Seaport	B8-Storage & Distribution	Sq.m	-	-	Thurrock	Near Certain	TA*	TA*	TA*	TA*
Land North of London Road, Billericay	C3-Dwelling House	Res units	-	540	Basildon	More Than Likely	540	540	540	540
New industrial units for Shalam UK Ltd	B1(c)-Light Industry (Business Park)	Sq.m	2250	-	Basildon	More Than Likely	2,250	2,250	2,250	2,250
Phoenix House, Christopher Martin Road, Basildon	B1(c)-Light Industry (Business Park)	Sq.m	4738	-	Basildon	Near Certain	4,738	4,738	4,738	4,738
Gilbarco Veeder Root site, Compton Close	A1-Retail	Sq.m	4228	-	Basildon	Near Certain	4,228	4,228	4,228	4,228
Gilbarco Veeder Root site, Compton Close	B8-Storage & Distribution	Sq.m	6968	-	Basildon	Near Certain	6,968	6,968	6,968	6,968
Cranes Point, Gardiners Lane South	Sui Generis	Sq.m	3284	-	Basildon	Near Certain	3,284	3,284	3,284	3,284
Ford Powertrain Development Laboratory West Wing - Extension	B1(b)-Research & Development	Sq.m	1840	-	Basildon	Near Certain	1,840	1,840	1,840	1,840
Aldi Food Store, The Broadway	A1-Retail	Sq.m	1738	-	Basildon	Near Certain	1,738	1,738	1,738	1,738
East Horndon Industrial Park	A3-Restaurants and cafes	Sq.m	250	-	Brentwood	Near Certain	250	250	250	250

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
East Horndon Industrial Park	B1(b), B1(c), B2 and B8	Sq.m	35000	-	Brentwood	Near Certain	35,000	35,000	35,000	35,000
Lidl Discount Foodstore and Residential Development, A128 Ongar Road	A1-Retail	Sq.m	2956	-	Brentwood	More Than Likely	2,956	2,956	2,956	2,956
Lidl Discount Foodstore and Residential Development, A128 Ongar Road	C3-Dwelling House (or C2)	Res units	-	80	Brentwood	More Than Likely	80	80	80	80
St Michaels Homes, Dudbrook Road	C2-Residential institutions	Res units	-	62	Brentwood	More Than Likely	62	62	62	62
St Michaels Homes, Dudbrook Road	D1-Non-residential Institutions	Sq.m	320	-	Brentwood	More Than Likely	320	320	320	320
Hallmark Care Homes, Rayleigh Close, Hutton	C2-Residential institutions	Res units	-	132	Brentwood	Near Certain	132	132	132	132
Brentwood Preparatory School, Middleton Hall Lane	D1-Non-residential Institutions	Sq.m	1772	-	Brentwood	Near Certain	1,772	1,772	1,772	1,772
King Georges Playing Fields, Ingrave Road	D2-Assembly and Leisure	Sq.m	4080	-	Brentwood	Near Certain	4,080	4,080	4,080	4,080
London Aerospace and Technology College, Biggin Hill Airport	D1-Non-residential Institutions	Sq.m	2130	-	Bromley	Near Certain	2,130	2,130	2,130	2,130

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Wells House, Elmfield Road, Bromley	B1(a)-Business Office	Sq.m	10599	-	Bromley	More Than Likely	10,599	10,599	10,599	10,599
Maybrey Works (Dylon Phase 2)	C3-Dwelling House	Res units	-	159	Bromley	Near Certain	159	159	159	159
Maybrey Works (Dylon Phase 2)	B1(a) - B1(c)	Sq.m	1243	-	Bromley	Near Certain	1,243	1,243	1,243	1,243
Maybrey Works (Dylon Phase 2)	D2-Assembly and Leisure	Sq.m	157	-	Bromley	Near Certain	157	157	157	157
Dylon Phase 2, Station Approach, Lower Sydenham	C3-Dwelling House	Res units	-	254	Bromley	More Than Likely	254	254	254	254
Crossways Quarter	C3-Dwelling House	Res units	-	258	Dartford	More Than Likely	258	258	258	258
Land at Dartford International Ferry Terminal, Clipper Boulevard, Dartford	B8-Storage & Distribution	Sq.m	43047	-	Dartford	Near Certain	43,047	43,047	43,047	43,047
Westgate, Dartford	C3-Dwelling House	Res units	-	120	Dartford	More Than Likely	120	120	120	120
Westgate, Dartford	A1-Retail	Sq.m	2682	-	Dartford	More Than Likely	2,682	2,682	2,682	2,682
Westgate, Dartford	C1-Hotels	Sq.m	3000	-	Dartford	More Than Likely	3,000	3,000	3,000	3,000
Westgate, Dartford	D1-Non-residential Institutions	Sq.m	2686	-	Dartford	More Than Likely	2,686	2,686	2,686	2,686

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Westgate, Dartford	D2-Assembly and Leisure	Sq.m	2792	-	Dartford	More Than Likely	2,792	2,792	2,792	2,792
Clifton Slipways, Gravesend	C3-Dwelling House	Res units	-	227	Gravesham	More Than Likely	227	227	227	227
Land West of Church Road, Otham, Maidstone	C3-Dwelling House	Res units	-	440	Maidstone	More Than Likely	440	440	440	440
Yalding Enterprise Park, Hampstead Lane, Yalding, Kent	B2-Industry	Sq.m	19943	-	Maidstone	More Than Likely	19,943	19,943	19,943	19,943
Yalding Enterprise Park, Hampstead Lane, Yalding, Kent	B8-Storage & Distribution	Sq.m	26504	-	Maidstone	More Than Likely	26,504	26,504	26,504	26,504
Land off Oakapple Lane, Barming Phase 2	C3-Dwelling House	Res units	-	305	Maidstone	More Than Likely	305	305	305	305
Land to the West of Crown Quay Lane, Sittingbourne	C3-Dwelling House	Res units	-	383	Maidstone	Near Certain	383	383	383	383
Sittingbourne Town Centre Regeneration	C3-Dwelling House	Res units	-	215	Maidstone	Near Certain	215	215	215	215
Sittingbourne Town Centre Regeneration	A1-Retail	Sq.m	3158	-	Maidstone	Near Certain	3,158	3,158	3,158	3,158
Sittingbourne Town Centre Regeneration	A3-Restaurants and cafes	Sq.m	2320	-	Maidstone	Near Certain	2,320	2,320	2,320	2,320
Sittingbourne Town Centre Regeneration	D2-Assembly and Leisure	Sq.m	2298	-	Maidstone	Near Certain	2,298	2,298	2,298	2,298

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Len House (Rootes, Maidstone), Mill Street	C3-Dwelling House	Res units	-	159	Maidstone	More Than Likely	159	159	159	159
Len House (Rootes, Maidstone), Mill Street	flexible commercial floorspace (A1/A2/A3/A4/A5/B1a/D1/D2)	Sq.m	3612	-	Maidstone	More Than Likely	3,612	3,612	3,612	3,612
12-14 Week Street, Maidstone	C1-Hotels	Sq.m	5493	-	Maidstone	Near Certain	5,493	5,493	5,493	5,493
Aldi store, Neats Court Business Park	A1-Retail	Sq.m	1933	-	Maidstone	More Than Likely	1,933	1,933	1,933	1,933
Oakland Care, Dorothy Lucy Centre, Maidstone	C2-Residential institutions	Res units	-	66	Maidstone	Near Certain	66	66	66	66
Stones Farm, Sittingbourne	C3-Dwelling House	Res units	-	600	Maidstone	Near Certain	600	600	600	600
East Hill, Hempstead Valley	C3-Dwelling House	Res units	-	650	Medway	More Than Likely	800	800	800	800
East Hill, Hempstead Valley	D1-Non-residential Institutions	Sq.m	1,400	-	Medway	More Than Likely	1,400	1,400	1,400	1,400
Land west of Town Road, Cliffe Woods, Medway	C3-Dwelling House	Res units	-	225	Medway	More Than Likely	225	225	225	225
St Andrews Lake, Formby Road, Halling, Kent	D2-Assembly and Leisure	Sq.m	2837	-	Medway	More Than Likely	2,837	2,837	2,837	2,837

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Lidl Food Store, Medway Road, Gillingham	A1-Retail	Sq.m	1669	-	Medway	More Than Likely	1,669	1,669	1,669	1,669
East Mall, Hempstead Valley Shopping Centre	D2-Assembly and Leisure	Sq.m	2720	-	Medway	Near Certain	2,720	2,720	2,720	2,720
Leigh Academy, Rainham	D1-Non-residential Institutions	Sq.m	8820	-	Medway	Near Certain	8,820	8,820	8,820	8,820
Land at Queen Street Car Park, Chatham	C3-Dwelling House	Res units	-	229	Medway	More Than Likely	229	229	229	229
Training Centre, Chatham Freight Station, Chatham Docks	D1-Non-residential Institutions	Sq.m	3850	-	Medway	Near Certain	3,850	3,850	3,850	3,850
Bardell Wharf, Rochester	C3-Dwelling House	Res units	-	314	Medway	Near Certain	314	314	314	314
Bardell Wharf, Rochester	A1-Retail	Sq.m	1283	-	Medway	Near Certain	1,283	1,283	1,283	1,283
Bardell Wharf, Rochester	B1(a)-Business Office	Sq.m	967	-	Medway	Near Certain	967	967	967	967
Phase 3, Land West of Rochester Road/Maidstone Road, Borstal, Rochester	B8-Storage & Distribution	Sq.m	6880	-	Medway	Near Certain	6,880	6,880	6,880	6,880
Innovation Park, Medway	B1, B2	Sq.m	101000	-	Medway	More Than Likely	101,000	101,000	101,000	101,000



Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Horsted Retail Park, Chatham	D2-Assembly and Leisure	Sq.m	1700	-	Medway	Near Certain	1,700	1,700	1,700	1,700
Horsted Retail Park, Chatham	A1-Retail	Sq.m	2002	-	Medway	Near Certain	2,002	2,002	2,002	2,002
Cathedral View Hotel, Corporation Street, Rochester	C1-Hotels	Sq.m	3891	-	Medway	Near Certain	3,891	3,891	3,891	3,891
M2CityLink, Plot 1 Medway City Estate	a flexible mix of B2/B8	Sq.m	12300	-	Medway	Near Certain	12,300	12,300	12,300	12,300
Units B5/B6, Medway Valley Park, Rochester	D2-Assembly and Leisure	Sq.m	1842	-	Medway	Near Certain	1,842	1,842	1,842	1,842
SECAmb Multi Use Centre, Bredgar Road	Sui Generis	Sq.m	4405	-	Medway	Near Certain	4,405	4,405	4,405	4,405
Stonehouse Park, Sevenoaks	C3-Dwelling House	Res units	-	850	Sevenoaks	More Than Likely	850	850	850	850
Stonehouse Park, Sevenoaks	C2-Residential institutions	Res units	-	180	Sevenoaks	More Than Likely	180	180	180	180
Stonehouse Park, Sevenoaks	A1-A3	Sq.m	1150	-	Sevenoaks	More Than Likely	1,150	1,150	1,150	1,150
Stonehouse Park, Sevenoaks	B1(a)-Business Office	Sq.m	3716	-	Sevenoaks	More Than Likely	3,716	3,716	3,716	3,716
Stonehouse Park, Sevenoaks	D1-Non-residential Institutions	Sq.m	1000	-	Sevenoaks	More Than Likely	1,000	1,000	1,000	1,000

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
NHS Edenbridge Health and Wellbeing Centre	D1-Non-residential Institutions	Sq.m	2066	-	Sevenoaks	Near Certain	2,066	2,066	2,066	2,066
The Woodlands, Hilda May Avenue, Swanley	C2-Residential institutions	Res units	-	75	Sevenoaks	Near Certain	75	75	75	75
Purfleet Commercial Park, Stonehouse Lane, Purfleet	B8-Storage & Distribution	Sq.m	31424	-	Thurrock	More Than Likely	31,424	31,424	31,424	31,424
Treetops Free School, Buxton Road, Grays	D1-Non-residential Institutions	Sq.m	3522	-	Thurrock	Near Certain	3,522	3,522	3,522	3,522
Langdon Hills Golf Club, Lower Dunton Road, Bulphan	C2-Residential institutions	Res units	-	238	Thurrock	More Than Likely	238	238	238	238
Langdon Hills Golf Club, Lower Dunton Road, Bulphan	D2-Assembly and Leisure	Sq.m	3181	-	Thurrock	More Than Likely	3,181	3,181	3,181	3,181
Little Malgraves Farm, Bulphan	C2-Residential institutions	Sq.m	1407	-	Thurrock	More Than Likely	1,407	1,407	1,407	1,407
Little Malgraves Farm, Bulphan	C3-Dwelling House	Res units	-	80	Thurrock	More Than Likely	80	80	80	80
Churchill Green, Little Thurrock, Grays	C3-Dwelling House	Res units	-	161	Thurrock	More Than Likely	161	161	161	161
Churchill Green, Little Thurrock, Grays	B1(c)-Light Industry (Business Park)	Sq.m	2550	-	Thurrock	More Than Likely	2,550	2,550	2,550	2,550

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Churchill Green, Little Thurrock, Grays	B2-Industry	Sq.m	2550	-	Thurrock	More Than Likely	2,550	2,550	2,550	2,550
Churchill Green, Little Thurrock, Grays	B8-Storage & Distribution	Sq.m	2550	-	Thurrock	More Than Likely	2,550	2,550	2,550	2,550
Unit A2C Lakeside Retail Park	D2-Assembly and Leisure	Sq.m	6713	-	Thurrock	More Than Likely	6,713	6,713	6,713	6,713
Unit A, Lakeside Retail Park, Thurrock	A1-Retail	Sq.m	8374	-	Thurrock	Near Certain	8,374	8,374	8,374	8,374
Land North of Lower Haysden Lane, Tonbridge	C3-Dwelling House	Res units	-	125	Tonbridge&Malling	More Than Likely	125	125	125	125
Land North of Lower Haysden Lane, Tonbridge	D1-Non-residential Institutions	Sq.m	2800		Tonbridge&Malling	More Than Likely	2,800	2,800	2,800	2,800
Land South of London Road, Leybourne	C3-Dwelling House	Res units	-	250	Tonbridge&Malling	More Than Likely	250	250	250	250
Phase 4, Platt Industrial Estate, Maidstone Road	B2-Industry	Sq.m	1614	-	Tonbridge&Malling	Near Certain	1,614	1,614	1,614	1,614
78c High Street, Tonbridge	C1-Hotels	Sq.m	2095	-	Tonbridge&Malling	More Than Likely	2,095	2,095	2,095	2,095
78c High Street, Tonbridge	C3-Dwelling House	Res units	-	10	Tonbridge&Malling	More Than Likely	10	10	10	10
Lidl Food Store, London Road, Ditton	A1-Retail	Sq.m	1674	-	Tonbridge&Malling	Near Certain	1,674	1,674	1,674	1,674

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Hildenborough Volvo, Tonbridge Road, Hildenborough	C2-Residential institutions	Res units	-	75	Tonbridge&Malling	Near Certain	75	75	75	75
Former Colas Roads Site, Vale Road, Tonbridge	B1(c), B2 and B8	Sq.m	9025	-	Tonbridge&Malling	Near Certain	9,025	9,025	9,025	9,025
Oakdene Business Park	B1, B2 and B8	Sq.m	3160	-	Tonbridge&Malling	Near Certain	3,160	3,160	3,160	3,160
Thames Enterprise Park The Manorway Coryton Essex	B8-Storage & Distribution	Sq.m	480000	-	Thurrock	More Than Likely	480,000	480,000	480,000	480,000
East Tilbury (Land For Development Muckingford Road Linford Essex)	C3-Dwelling House	Res units	-	1,000	Thurrock	More Than Likely	1,000	1,000	1,000	1,000
Star Industrial Estate Linford Road Chadwell St Mary Essex	C3-Dwelling House	Res units	-	203	Thurrock	Near Certain	203	203	203	203
intu Lakeside Shopping Centre: Northern Extension	A1-Retail	Sq.m	37651	-	Thurrock	Near Certain	37,651	37,651	37,651	37,651
intu Lakeside Shopping Centre: Northern Extension	A2-A5	Sq.m	3053	-	Thurrock	Near Certain	3,053	3,053	3,053	3,053
intu Lakeside Shopping Centre: Northern Extension	Other - Multistorey car park	Sq.m	24103	-	Thurrock	Near Certain	24,103	24,103	24,103	24,103

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
intu Lakeside Leisure	Various	Sq.m	39453	-	Thurrock	Near Certain	TA*	TA*	TA*	TA*
SERGO Logistics Park, Purfleet Road, Aveley (Land Adj A13 A1306 And Purfleet Road Aveley Essex)	B1(a)-Business Office	Sq.m	2891	-	Thurrock	Near Certain	2,891	2,891	2,891	2,891
SERGO Logistics Park, Purfleet Road, Aveley (Land Adj A13 A1306 And Purfleet Road Aveley Essex)	B8-Storage & Distribution	Sq.m	23424	-	Thurrock	Near Certain	23,424	23,424	23,424	23,424
Thurrock Council Civic Offices	Sui Generis	Sq.m	2163	-	Thurrock	Near Certain	2,163	2,163	2,163	2,163
Askews Industrial Estate, Askews Farm Lane, Grays, Essex	B2 & B8	Sq.m	4479	-	Thurrock	More Than Likely	4,479	4,479	4,479	4,479
Old State Cinema, George Street	A4-Drinking establishments	Sq.m	2643	-	Thurrock	Near Certain	2,643	2,643	2,643	2,643
Premier Freight Services Ltd, Wouldham Road, West Thurrock	B8-Storage & Distribution	Sq.m	5544	-	Thurrock	Near Certain	5,544	5,544	5,544	5,544
Previous Mecca Bingo, Quarry Hill	D1-Non-residential Institutions	Sq.m	1650	-	Thurrock	Near Certain	1,650	1,650	1,650	1,650
Land Adjacent Unit 53 Globe Industrial Estate Towers Road	B1(a)-Business Office	Sq.m	400	-	Thurrock	Near Certain	400	400	400	400

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Land Adjacent Unit 53 Globe Industrial Estate Towers Road	B1(c)-Light Industry (Business Park)	Sq.m	1955	-	Thurrock	Near Certain	1,955	1,955	1,955	1,955
Land north of Bannatynes Health Club, Howard Road, Chafford Hundred	C3-Dwelling House	Res units	-	203	Thurrock	Near Certain	203	203	203	203
St Cleres School, Butts Lane, Stanford Le Hope	D1-Non-residential Institutions	Sq.m	2244	-	Thurrock	Near Certain	2,244	2,244	2,244	2,244
Stanhope Industrial Park, Wharf Road, Stanford Le Hope	B8-Storage & Distribution	Sq.m	8100	-	Thurrock	Near Certain	8,100	8,100	8,100	8,100
Squibb Group, Stanhope Industrial Estate	B1(a)-Business Office	Sq.m	2280	-	Thurrock	Near Certain	2,280	2,280	2,280	2,280
Squibb Group, Stanhope Industrial Estate	B1(c)-Light Industry (Business Park)	Sq.m	480	-	Thurrock	Near Certain	480	480	480	480
Squibb Group, Stanhope Industrial Estate	B8-Storage & Distribution	Sq.m	1260	-	Thurrock	Near Certain	1,260	1,260	1,260	1,260
Purfleet Thames Terminal Car Deck	unilever car storage	Sq.m	210000	-	Thurrock	Near Certain	210,000	210,000	210,000	210,000
Fiddlers Reach	B1(c)-Light Industry (Business Park)	Sq.m	18240	-	Thurrock	Near Certain	18,240	18,240	18,240	18,240
Fiddlers Reach	B2-Industry	Sq.m	18240	-	Thurrock	Near Certain	18,240	18,240	18,240	18,240

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Fiddlers Reach	B8-Storage & Distribution	Sq.m	18240	-	Thurrock	Near Certain	18,240	18,240	18,240	18,240
Purfleet Farm	B2-Industry	Sq.m	20000	-	Thurrock	Near Certain	20,000	20,000	20,000	20,000
Purfleet Farm	B8-Storage & Distribution	Sq.m	13000	-	Thurrock	Near Certain	13,000	13,000	13,000	13,000
Sports Direct, Thurrock Shopping Park	A1-Retail	Sq.m	2833	-	Thurrock	Near Certain	2,833	2,833	2,833	2,833
Sports Direct, Thurrock Shopping Park	D2-Assembly and Leisure	Sq.m	2194	-	Thurrock	Near Certain	2,194	2,194	2,194	2,194
Plot 17, Land off Ferry Lane, Rainham	B1(c), B2 and B8	Sq.m	9235	-	Havering	Near Certain	9,235	9,235	9,235	9,235
Eastgate Quarter	C3-Dwelling House (or C2)	Res units	-	2,800	Basildon	More Than Likely	2,800	2,800	2,800	2,800
Eastgate Quarter	retail and commercial (A1-A5, D1, D2, Sui Generis and /or B1)	Sq.m	6,786	-	Basildon	More Than Likely	6,786	6,786	6,786	6,786
Land West of Steeple View	C3-Dwelling House (or C2)	Res units	-	269	Basildon	More Than Likely	269	269	269	269
Basildon Town Square North	C3-Dwelling House (or C2)	Res units	-	535	Basildon	More Than Likely	535	535	535	535
Land At Market Square, Basildon	Mixed use A1-A5, B1, D1 and or D2	Sq.m	2879	-	Basildon	More Than Likely	2,879	2,879	2,879	2,879

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Land At Market Square, Basildon	C3-Dwelling House (or C2)	Res units	-	492	Basildon	More Than Likely	492	492	492	492
Former Ford HQ and Council Depot, Eagle Way, Warley	C2	Sq.m	3700	-	Brentwood	More Than Likely	3,700	3,700	3,700	3,700
Former Ford HQ and Council Depot, Eagle Way, Warley	C3-Dwelling House	Res units	-	133	Brentwood	More Than Likely	133	133	133	133
Former Ford HQ and Council Depot, Eagle Way, Warley	B1(a)-Business Office	Sq.m	796	-	Brentwood	More Than Likely	796	796	796	796
Former Lynch Plant Site, Hawley Road	B1(c), B2 and B8	Sq.m	10564	-	Dartford	More Than Likely	10,564	10,564	10,564	10,564
Land North of Kennel Lane	C3-Dwelling House	Res units	-	200	Basildon	More Than Likely	200	200	200	200
Car Park No.11 Ashdon Way	F1	Sq.m	2308	-	Basildon	More Than Likely	2,308	2,308	2,308	2,308
Gardiners Lane South	mixed	mixed	-	700	Basildon	More Than Likely	700	700	700	700
Land At Pipp's Hill Road North Billericay Essex	C2 - Residential Institutions	Sq.m	4733	-	Basildon	More Than Likely	4,733	4,733	4,733	4,733
Gilbarco Ltd Crompton Close Basildon	B8 - Warehousing	Sq.m	5136	-	Basildon	More Than Likely	5,136	5,136	5,136	5,136
Land At Crabtree Manorway South Belvedere Kent	C3 - Dwelling HousesE	Res units	-	1250	Bexley	More Than Likely	1,250	1,250	1,250	1,250



Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Land At Crabtree Manorway South Belvedere Kent	Use Class E	Sq.m	500	-	Bexley	More Than Likely	500	500	500	500
Crayford Industrial Estate Swaislands Drive Crayford Dartford	E(g), B2 and B8	Sq.m	10294	-	Bexley	More Than Likely	10,294	10,294	10,294	10,294
Land Bound By Harrow Manorway, Yarnton Way, Lensbury Way And Maran Way London	C3 - Dwelling houses	Res units	-	1950	Bexley	More Than Likely	1,950	1,950	1,950	1,950
Land Bound By Harrow Manorway, Yarnton Way, Lensbury Way And Maran Way London	E - commercial	Sq.m	3,225	-	Bexley	More Than Likely	3,225	3,225	3,225	3,225
Land Bound By Harrow Manorway, Yarnton Way, Lensbury Way And Maran Way London	A4 - Drinking Establishments	Sq.m	400	-	Bexley	More Than Likely	400	400	400	400
Albion Waterside Canal Basin Gravesend Kent DA12 2RN	A1	Sq.m	800	-	Gravesham	More Than Likely	800	800	800	800
Albion Waterside Canal Basin Gravesend Kent DA12 2RN	A3	Sq.m	900	-	Gravesham	More Than Likely	900	900	900	900

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Albion Waterside Canal Basin Gravesend Kent DA12 2RN	B1a	Sq.m	1125	-	Gravesham	More Than Likely	1,125	1,125	1,125	1,125
Albion Waterside Canal Basin Gravesend Kent DA12 2RN	B1c	Sq.m	1675	-	Gravesham	More Than Likely	1,675	1,675	1,675	1,675
Albion Waterside Canal Basin Gravesend Kent DA12 2RN	C3, C2	Res units	-	1,500	Gravesham	More Than Likely	1,500	1,500	1,500	1,500
Rainham Recreation Ground Viking Way Rainham RM13 9YG	D2 Assembly and leisure	Sq.m	2000	-	Havering	More Than Likely	2,000	2,000	2,000	2,000
Kent Science Park Shimmin Road	B1 - Business	Sq.m	12,000	-	Maidstone	More Than Likely	12,000	12,000	12,000	12,000
Land At Bicknor Farm	C3	Res units	-	302	Maidstone	More Than Likely	302	302	302	302
Rootes Maidstone Len House	C3	Res units	-	159	Maidstone	More Than Likely	159	159	159	159
Rootes Maidstone Len House	A1/A2/A3/A4/A5 /B1a/D1/D2	Sq.m	3612	-	Maidstone	More Than Likely	3,612	3,612	3,612	3,612
Brogdale Farm	Mixed Use - D1, B1	Sq.m	2735	-	Maidstone	More Than Likely	2,735	2,735	2,735	2,735
Land off City Way (Former Playing Field)	D1 - Non-residential institution	Sq.m	9065	-	Medway	More Than Likely	9,065	9,065	9,065	9,065

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Land South of Lower Rainham Road	C3-Dwelling House	Res units	-	202	Medway	More Than Likely	202	202	202	202
Land Bounded by the Brook Street Car Park	C3-Dwelling House	Res units	-	179	Medway	More Than Likely	179	179	179	179
26 - 28 Hoath Lane, Rainham	C2 - Residential Institutions	Sq.m	3639	-	Medway	More Than Likely	3,639	3,639	3,639	3,639
Land South Of Berwick Way, East Of Frindsbury Hill And North And West Of Parsonage Lane (known As Manor Farm) Frindsbury Rochester Medway	C3 - Dwellings	Res units	-	181	Medway	More Than Likely	181	181	181	181
Land South Of Berwick Way, East Of Frindsbury Hill And North And West Of Parsonage Lane (known As Manor Farm) Frindsbury Rochester Medway	Education	Sq.m	9500	-	Medway	More Than Likely	9,500	9,500	9,500	9,500
Broom Hill Site, London Road	B2 and B8	Sq.m	15067	-	Sevenoaks	More Than Likely	15,067	15,067	15,067	15,067
Land North of Town Station Cottages	C3	Res units	-	340	Sevenoaks	More Than Likely	340	340	340	340
Land North of Town Station Cottages	Education	Sq.m	4800	-	Sevenoaks	More Than Likely	4,800	4,800	4,800	4,800

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
136 High Street, Sevenoaks	C3	Res units	-	104	Sevenoaks	More Than Likely	104	104	104	104
136 High Street, Sevenoaks	A(1)	Sq.m	931	-	Sevenoaks	More Than Likely	931	931	931	931
Thames Park School, Chadwell Road	D1 - Non-residential institution	Sq.m	7414	-	Thurrock	More Than Likely	7,414	7,414	7,414	7,414
Top Sign Ensign Estate, Botany Way	B2 - General Industrial	Sq.m	1994	-	Thurrock	More Than Likely	1,994	1,994	1,994	1,994
Land to rear of Bannatynes Sport Centre, Howard Road, Chafford Hundred	C3-Dwelling House	Res units	-	344	Thurrock	More Than Likely	344	344	344	344
Aylesford Newsprint Bellingham Way Larkfield Aylesford	B1(c)	Sq.m	15,760	-	Tonbridge & Malling	More Than Likely	15,760	15,760	15,760	15,760
Aylesford Newsprint Bellingham Way Larkfield Aylesford	B2	Sq.m	31,250	-	Tonbridge & Malling	More Than Likely	31,250	31,250	31,250	31,250
Aylesford Newsprint Bellingham Way Larkfield Aylesford	B8	Sq.m	175,942	-	Tonbridge & Malling	More Than Likely	175,942	175,942	175,942	175,942
Development Site Land West Of Winterfield Lane	C3-Dwelling House	Res units	-	250	Tonbridge & Malling	More Than Likely	250	250	250	250

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Land South Of London Road And East Of Hermitage Lane	C3-Dwelling House	Res units	-	840	Tonbridge & Malling	More Than Likely	840	840	840	840
St Edward's Academy London Road	Other F1(a)	Sq.m	2091	-	Havering	More Than Likely	2,091	2,091	2,091	2,091
Gibraltar Farm Ham Lane Hempstead Gillingham Boxley Road Walderslade	Residential Units	Res units	-	450	Maidstone	More Than Likely	450	450	450	450
Bradfields School Churchill Avenue Wayfield Chatham Medway	D1 - Non-residential institution	Sq.m	1624	-	Medway	More Than Likely	1,624	1,624	1,624	1,624
Land Adjacent Blackshots Stadium And Stanford Road Grays	Other F.1 Education Use	Sq.m	8678	-	Thurrock	More Than Likely	8,678	8,678	8,678	8,678
Land At Dartford International Ferry Terminal Clipper Boulevard Dartford	B8 - Storage or Distribution	Sq.m	30000	-	Dartford	More Than Likely	30,000	30,000	30,000	30,000
Farm Villa Maidstone Hospital Hermitage Lane Maidstone Kent ME16 9PH	C2 - Residential Institutions	Sq.m	1458	-	Maidstone	More Than Likely	1,458	1,458	1,458	1,458

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Partial demolition of the liberty shopping centre and construction of new retail floorspace, demolition of bridge to existing service road and associated works to alter servicing area.	A1 - Shops	Sq.m	2503	-	Havering	More Than Likely	2,503	2,503	2,503	2,503
Construction of a 1,923sqm (GIA) foodstore with 55 car parking spaces.	A1 - Shops	Sq.m	2041	-	Havering	More Than Likely	2,041	2,041	2,041	2,041
Beam Park Former Ford Assembly Plant Site New Road (A1306) Rainham, South Hornchurch	C3	Res units	-	2,899	Havering	More Than Likely	2,899	2,899	2,899	2,899
Beam Park Former Ford Assembly Plant Site New Road (A1306) Rainham, South Hornchurch	A1	Sq.m	1,792	-	Havering	More Than Likely	1,792	1,792	1,792	1,792
Beam Park Former Ford Assembly Plant Site New Road (A1306) Rainham, South Hornchurch	D1 - Education	Sq.m	2,160	-	Havering	More Than Likely	2,160	2,160	2,160	2,160

Development	Land Use Type	Development measure	Sq M	units	Borough /District	Uncertainty	Development Size - Core			
							2030	2037	2045	2051
Beam Park Former Ford Assembly Plant Site New Road (A1306) Rainham, South Hornchurch	D2 Assembly and leisure	Sq.m	1,660	-	Havering	More Than Likely	1,660	1,660	1,660	1,660
Denver Industrial Estate Ferry Lane Rainham RM13 9DD	B1/B2/B8	Sq.m	44,090	-	Havering	More Than Likely	44,090	44,090	44,090	44,090
Plot 17 Land off Ferry Lane Rainham RM13 9BP	B8 - Storage or distribution	Sq.m	9,235	-	Havering	More Than Likely	9,235	9,235	9,235	9,235
Land Abutting Armour Road, Stonehouse Land	B8 - Storage or Distribution	Sq.m	31500	-	Thurrock	More Than Likely	31,500	31,500	31,500	31,500

**Table A.2 Planned highways schemes in the LTAM**

Scheme Name	Scheme Type	Opening Date	Probability	Project Status as of 30th September 2021
A1014 Sorrells roundabout	Junction improvement	2030**	More than likely	Associated planning application awaiting consent
A1089 - Tilbury2 link road	New link road	2030**	Near certain	Project delivered
A12 Chelmsford to A120 widening scheme	Carriageway widening	2028	Near Certain	Preferred route announced
A127/ A1015 Kent Elms Corner	Junction Improvement	Spring 2019	Near Certain	Project delivered
A127/A130 Fairglen Interchange	Junction improvement	Spring 2023	Near Certain	Fully approved
A127/A130 Fairglen Interchange new link road	New link road	Spring 2023	Near Certain	Fully approved, design in progress
A127/A132 Nevendon Interchange improvement scheme	Junction improvement	2017	Near Certain	Project delivered
A128 - Dunton Hills new roundabouts (x2)	New junction	2030**	More than likely	Associated planning application awaiting consent
A128/Old Tilbury Road junction	New roundabout	2030**	More than likely	Associated planning application awaiting consent
A128/Station Road junction improvements	Junction improvement	2030**	More than likely	Associated planning application awaiting consent
A129/Mountnessing Road junction	New signalised junction	2030**	More than likely	Associated planning application awaiting consent
A13 North Stifford improvement	Junction improvement	2021	Near Certain	Construction in progress
A13 Stanford-le-Hope bypass widening	Carriageway widening	Winter 2021/22	Near Certain	Construction in progress
A13 Stanford-le-Hope junction	Junction improvement	2030**	More than likely	Associated planning application awaiting consent
A1306/ Purfleet Road	Junction improvement	2030**	More than likely	Project delivered
A131 Chelmsford to Braintree route improvements	Junction and carriageway improvements	Spring 2020	Near Certain	Project delivered



Scheme Name	Scheme Type	Opening Date	Probability	Project Status as of 30th September 2021
A2 Fox Hill junction	New signalised junction	2030**	More than likely	Associated planning application awaiting consent
A2/Bean and A2/Ebbsfleet junctions	Junction improvements	2023	Near Certain	Construction in progress
A20 access to Dover	Junction improvement	2017	Near Certain	Project delivered
A20 Ashford Road, Bearsted	New junction	2030**	Near certain	Associated planning application approved
A20 Ashford Road/A274 Sutton Road/Willington Street	Junction improvement	2030**	More than likely	Associated planning application awaiting consent
A20 London Road/Ashton Way/Castle Way junction	Junction improvement	2030**	More than likely	Associated planning application awaiting consent
A21 Tonbridge to Pembury	Carriageway widening	2017	Near Certain	Project delivered
A226 London Road / B255 St Clements Way	Junction improvement	2030**	Near certain	Project delivered
A228/ Castle Way junction	Junction improvement	2030**	Near certain	Project delivered
A229 Bridgewood roundabout	Junction improvement	2030**	More than likely	Associated planning application awaiting consent
A229 Loose Road corridor and A20 London Road/Hall Road/Mills Road junction	Junction improvement	2030**	More than likely	Associated planning application awaiting consent
A249 Bearsted Road, Maidstone	Junction improvement and carriageway widening	Spring 2023	Near Certain	Fully approved, procurement in progress
A274 Sutton Road, Boughton Monchelsea	New junction	2030**	Near certain	Associated planning application approved
A28 Chart Road improvement scheme	Carriageway widening and junction improvement	On hold	More than likely	On hold
A28 Sturry Link Road	New road	Spring 2024	Near Certain	Fully approved, design in progress

Scheme Name	Scheme Type	Opening Date	Probability	Project Status as of 30th September 2021
A289 Four Elms roundabout to Medway Tunnel (Medway)	New road	Spring 2024	Near Certain	Fully approved, design in progress
A289 Upnor roundabout, Frindsbury	Junction improvement	2030**	More than likely	Associated planning application awaiting consent
A414 Pinch Point Package	Junction improvements and A414 widening	Spring 2019	Near Certain	Project delivered
Air Quality in Basildon	Carriageway improvements	2022	Near Certain	Construction in progress
B2097 Rochester Road, Medway	New junction	2030**	More than likely	Associated planning application awaiting consent
Beam Parkway A1306 transformational scheme	New railway station and A1306 carriageway reconfiguration	2023	Near Certain	Construction in progress
Chelmsford North East Bypass	Local bypass scheme	2024	More than likely	Planning application submitted
Chelmsford Urban Expansion (Boreham Interchange upgrade/Capacity Improvements)	Junction improvement	October 2021	Near Certain	Fully approved
Dunton Road/Wash Road	Junction improvements	2030**	More than likely	Associated planning application awaiting consent
Ebbsfleet Garden City	New Infrastructure Serving Development	2020	Near Certain	Project delivered
Hempstead Valley, Medway	Various improvements	2030**	More than likely	Associated planning application awaiting consent
Hewitts roundabout, Sevenoaks	Junction improvement	2030**	More than likely	Associated planning application awaiting consent
Hoath Way roundabout	Junction improvements	2030**	More than likely	Associated planning application awaiting consent
Lakeside Shopping Centre	New link road	2030**	Near certain	Associated planning application approved

Scheme Name	Scheme Type	Opening Date	Probability	Project Status as of 30th September 2021
M11 junction 7a	New junction on the M11 north of junction 7	2022	Near Certain	Construction in progress
M11 junction 8	Junction improvements	Spring 2023	Near Certain	Fully approved, design in progress
M2 junction 4	Junction improvements	2030**	More than likely	Associated planning application awaiting consent
M2 junction 5 improvements	Junction improvement	2025	Near Certain	Construction in progress
M20 junction 10a	New junction	2019	Near Certain	Project delivered
M20 junction 4 eastern overbridge widening	Carriageway widening	2017	Near Certain	Project delivered
M20 junction 5, Coldharbour roundabout	Junction improvement	2030**	More than likely	Associated planning application awaiting consent
M20 junctions 3-5 smart motorway	Smart motorway	2020	Near Certain	Project delivered
M23 junctions 8-10 smart motorway	Smart motorway	2020	Near Certain	Project delivered
M25 junction 10/A3 Wisley interchange improvement	Junction improvement	2024	Near Certain	Awaiting Secretary of State approval
M25 junction 13 improvements	Junction improvement	2020	Near Certain	Project delivered
M25 junction 2 improvement	Junction improvement	2019	Near Certain	Project delivered
M25 junction 23	Junction improvement	2021	Near Certain	Project delivered
M25 junction 25 improvements	Junction improvement	2022	Near Certain	Construction in progress
M25 junction 28 improvements	Junction improvement	2023	Near Certain	Awaiting Secretary of State approval
M25 junction 30/A13 corridor relieving congestion scheme*	Junction improvement	2016	Near Certain	Project delivered
M25 junctions 31-30	Junction improvements at junction 31 and mainline northbound	2030**	Near Certain	Associated planning application approved
M25 junctions 10-16 smart motorway	Smart motorway	2024/25	Near Certain	Detailed design

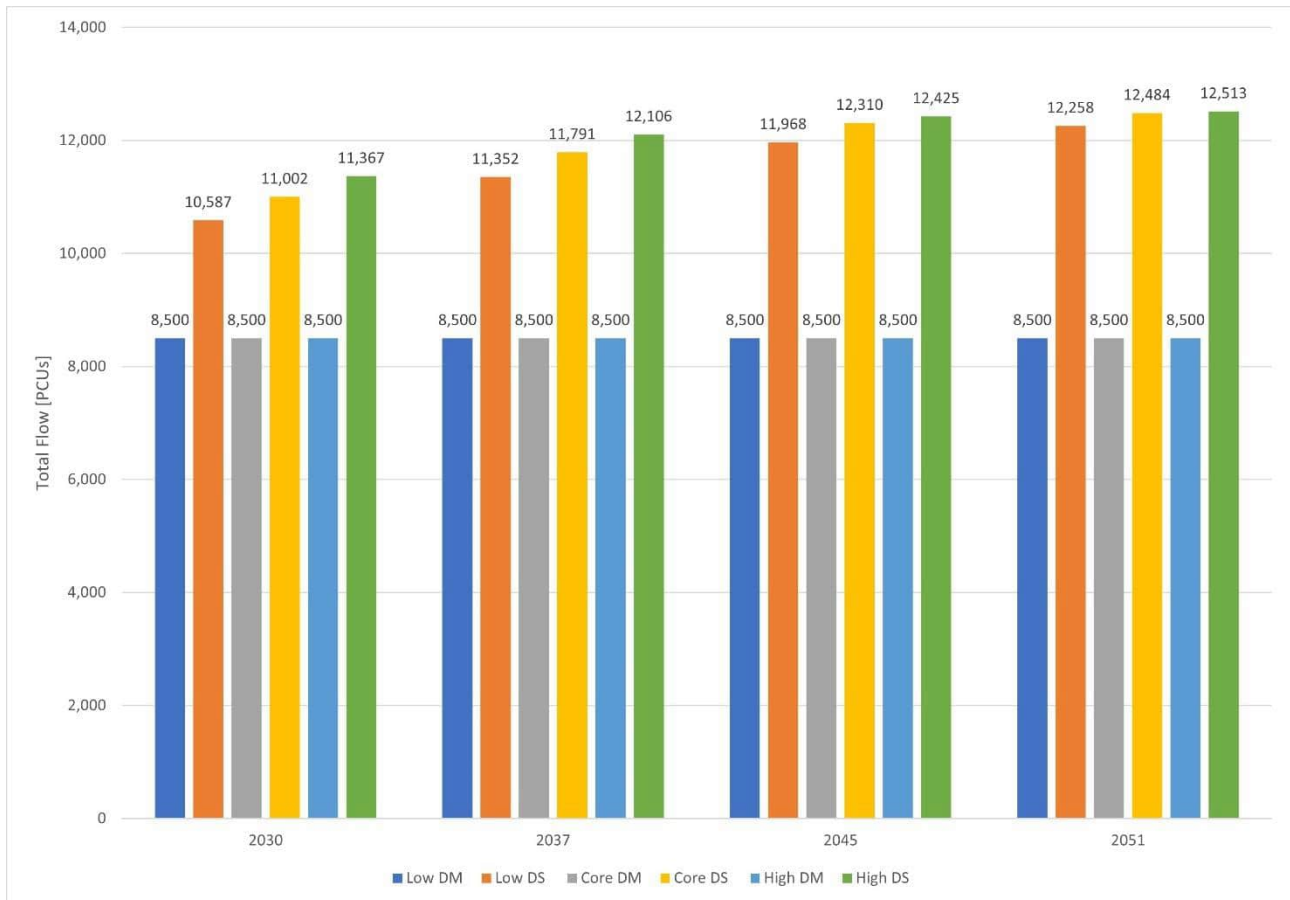
Scheme Name	Scheme Type	Opening Date	Probability	Project Status as of 30th September 2021
M3 junctions 2-4a smart motorway	Smart motorway	2017	Near Certain	Project delivered
M4 junctions 3-12 smart motorway	Smart motorway	2022	Near Certain	Construction in progress
Maidstone bridges improvement scheme	Carriageway widening and junction improvement	2017	Near Certain	Project delivered
Noak Hill Road/ Wash Road	New roundabout	2030**	More than likely	Associated planning application awaiting consent
Northlake, Lakeside basin	New junction	2030**	More than likely	Associated planning application awaiting consent
Parkway Corridor, Chelmsford	Junction improvements	2019	Near Certain	Project delivered
Peters Village Medway River Crossing	New bridge across the River Medway	Sep 2016	Near Certain	Project delivered
Rathmore Road Link, Gravesend	Carriageway and junction widening	December 2017	Near Certain	Project delivered
Silvertown Tunnel scheme	New twin bore tunnel east of the Blackwall Tunnel	2025	Near Certain	Construction in progress
St Clements Way, Greenhithe improvement scheme	Carriageway and junction widening	2019	Near Certain	Project delivered
Station Quarter North	New link roads	2030**	Near certain	Associated planning application approved
Thurrock Local Area Speed Limit Improvements	Speed Limit traffic management	2016-2021	Near Certain	Project delivered

\*\*Planning application schemes with no date identified have been assumed to be open by the Lower Thames Crossing opening year - 2030

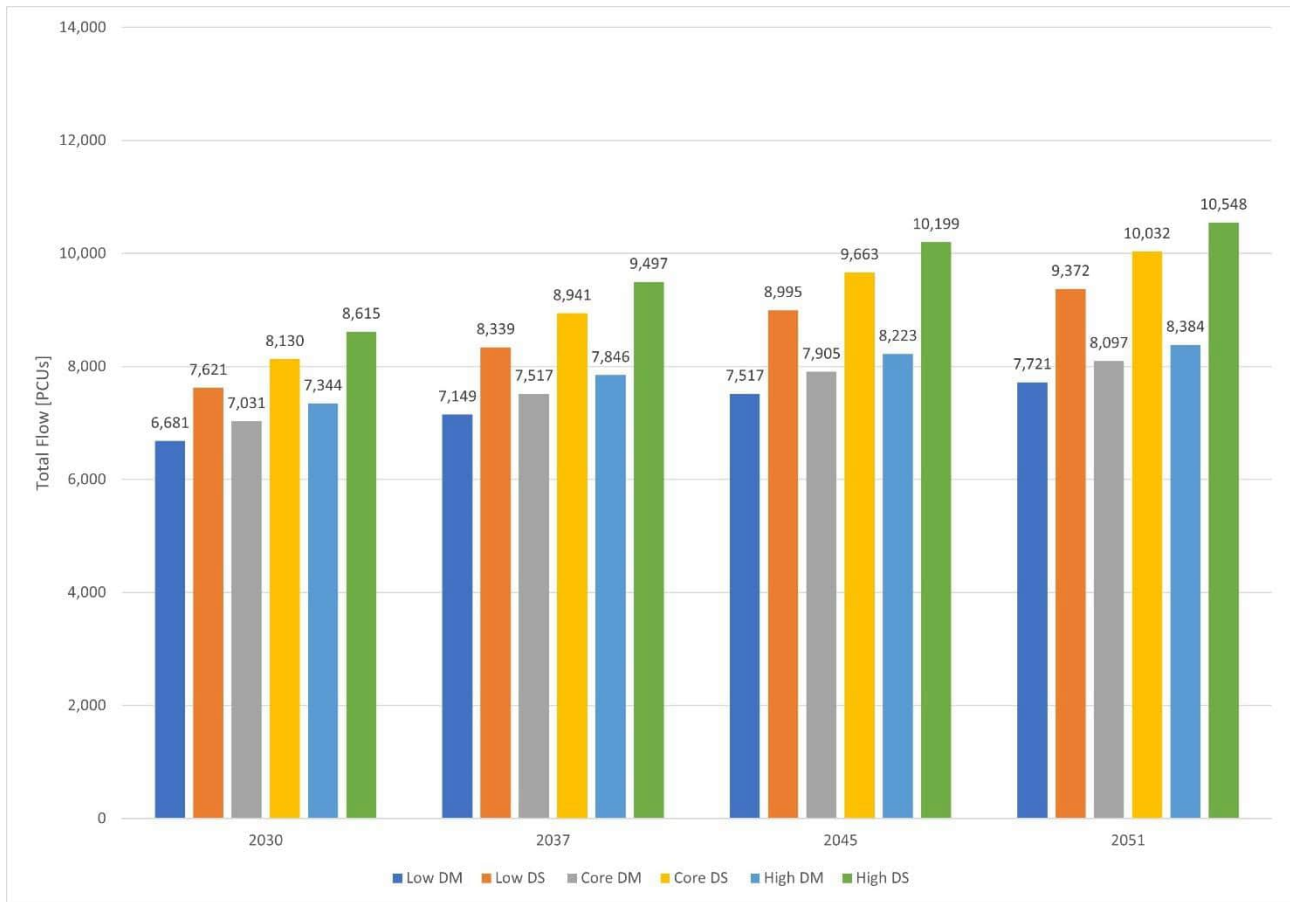
# Annex B Lower Thames Crossing Scheme Impacts – Cross River Flow Comparisons

B.1.1 Plate B.1 to B.18 show the total all vehicle cross river flows (Dartford and LTC combined) for each direction for each time period for each forecast year for each of the different growth scenarios.

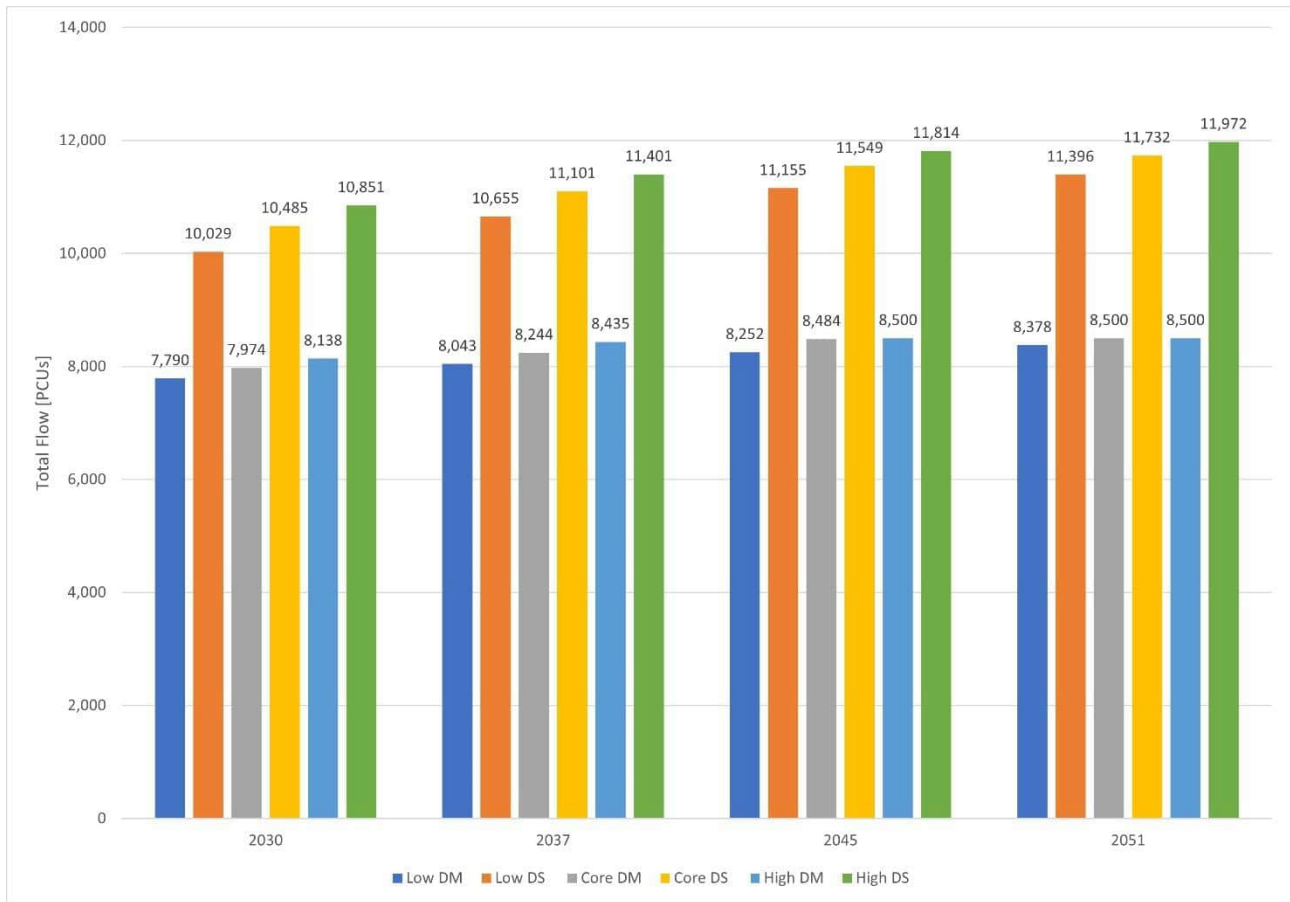
**Plate B.1 AM Southbound Cross River Flows (PCU/Hr) Core, Low and High Growth Scenarios**



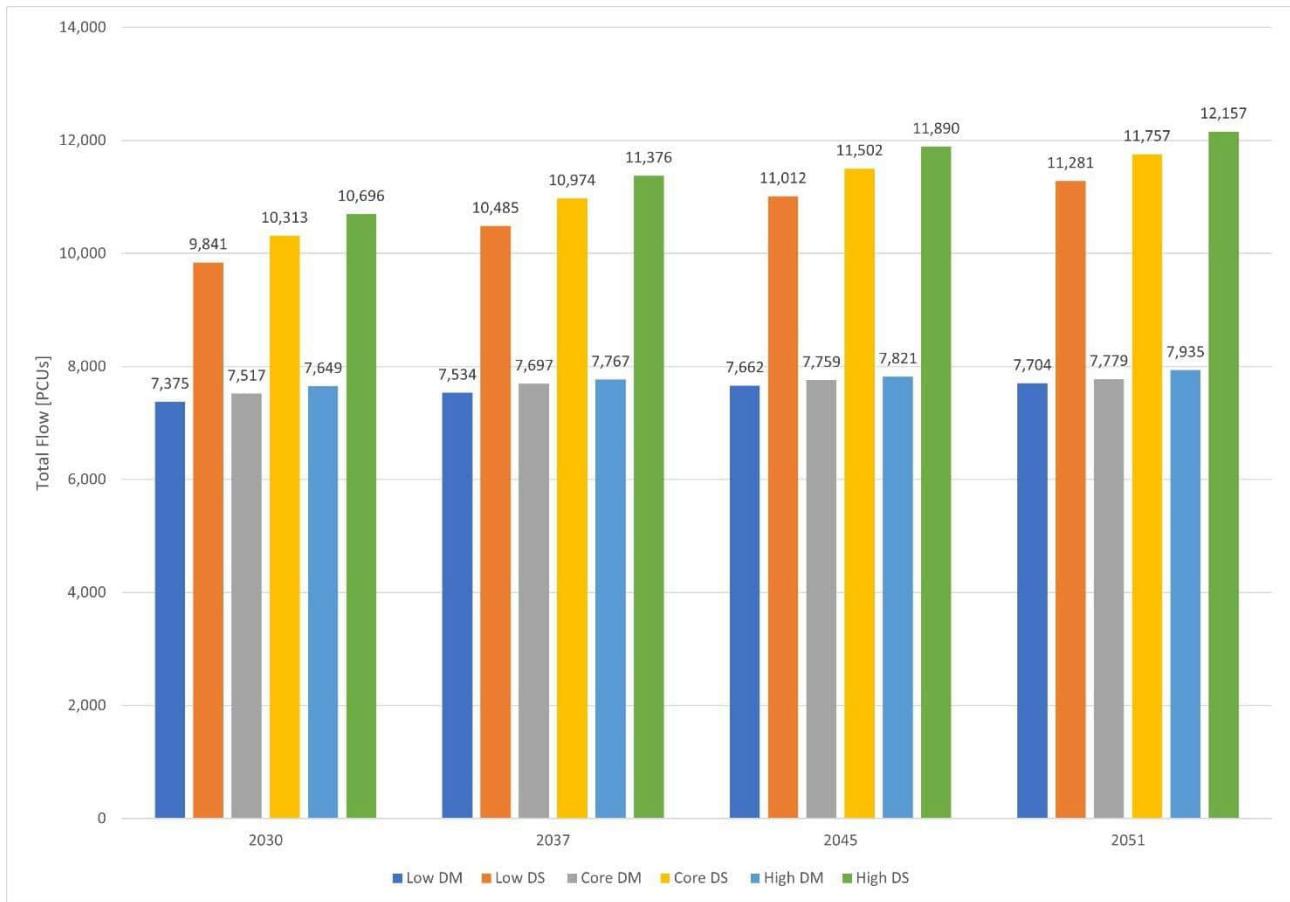
### Plate B.2 IP Southbound Cross River Flows (PCU/Hr) Core, Low and High Growth Scenarios



### Plate B.3 PM Southbound Cross River Flows (PCU/Hr) Core, Low and High Growth Scenarios

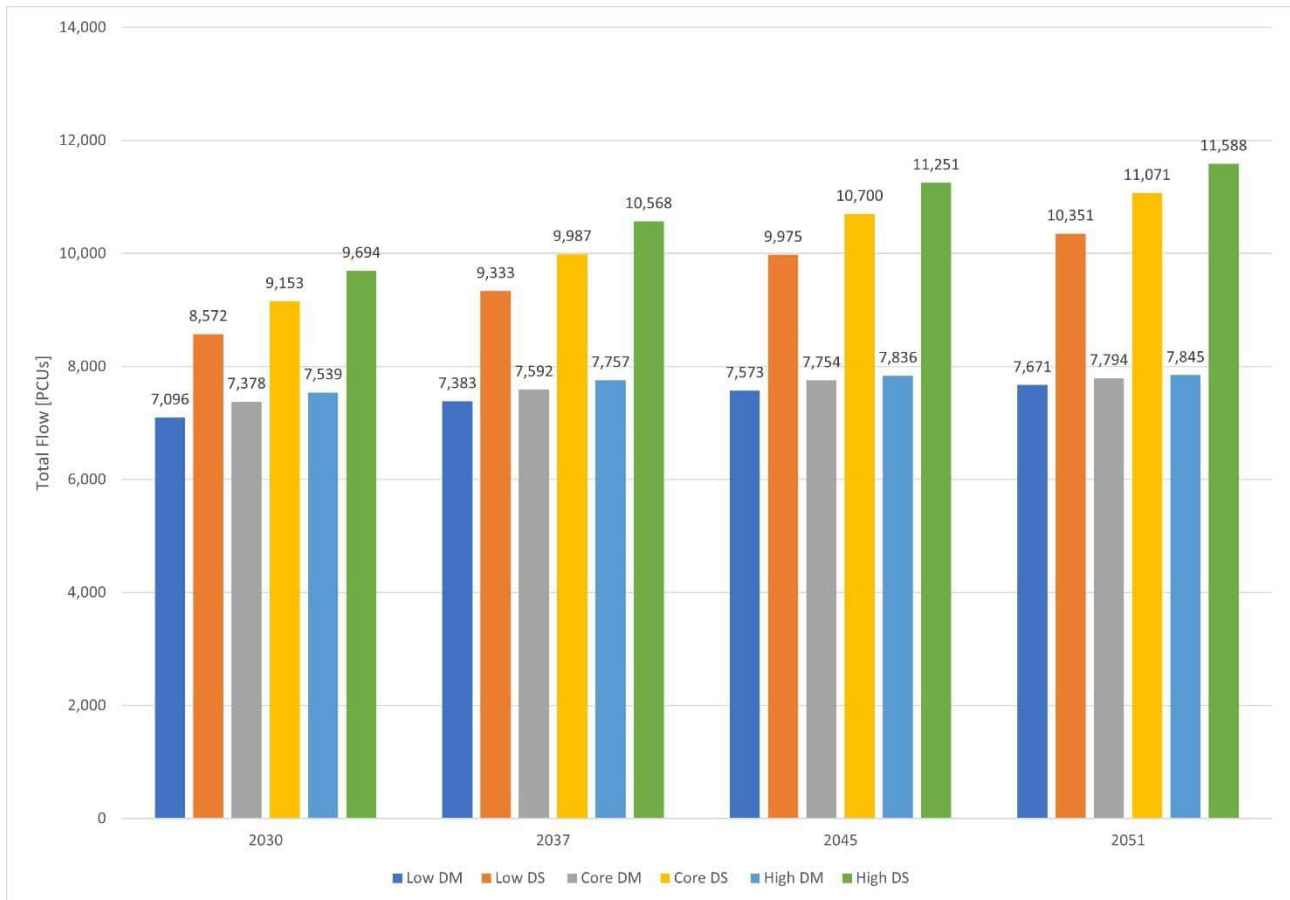


### Plate B.4 AM Northbound Cross River Flows Approaching TMC (PCU/Hr) Core, Low and High Growth Scenarios

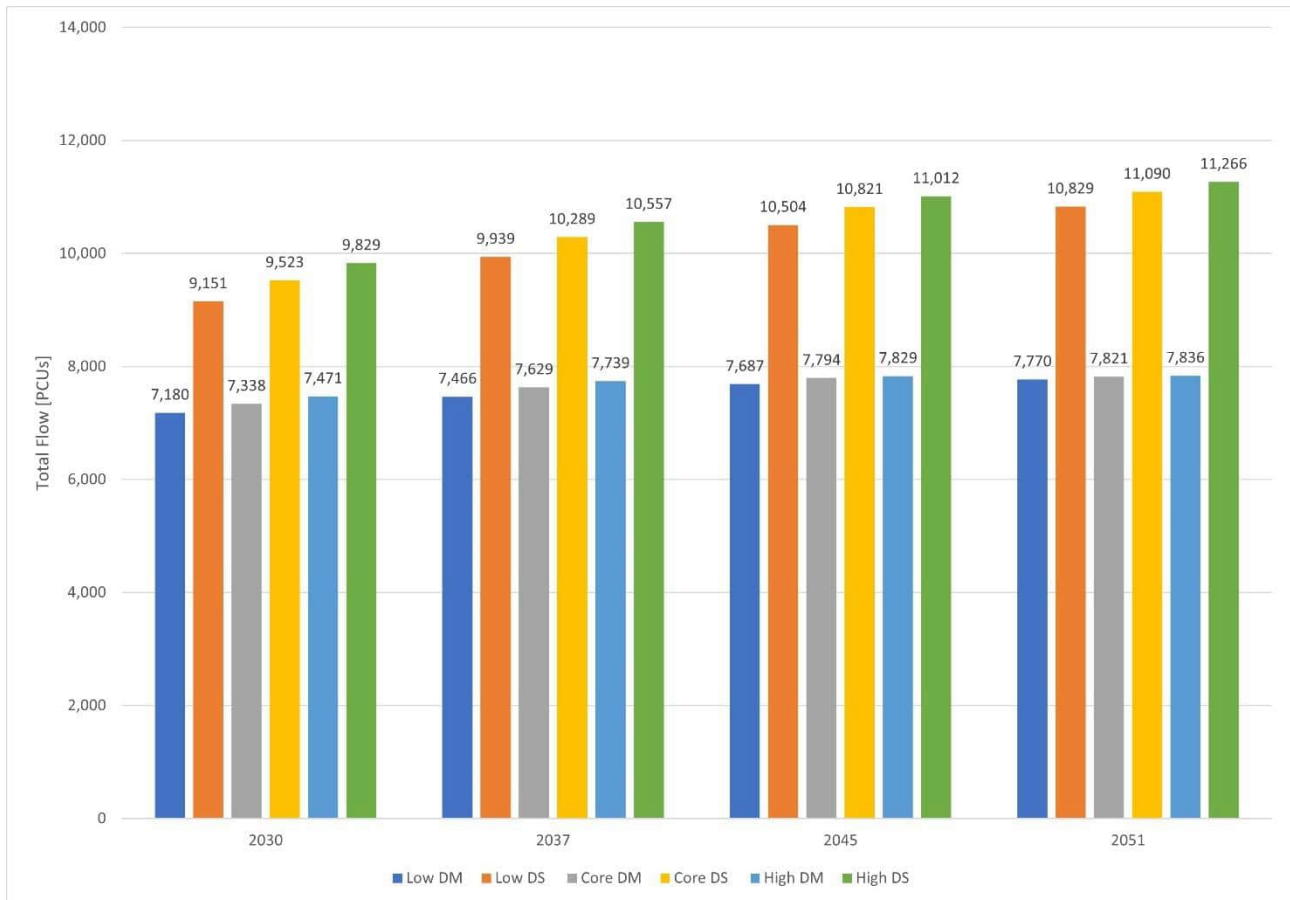




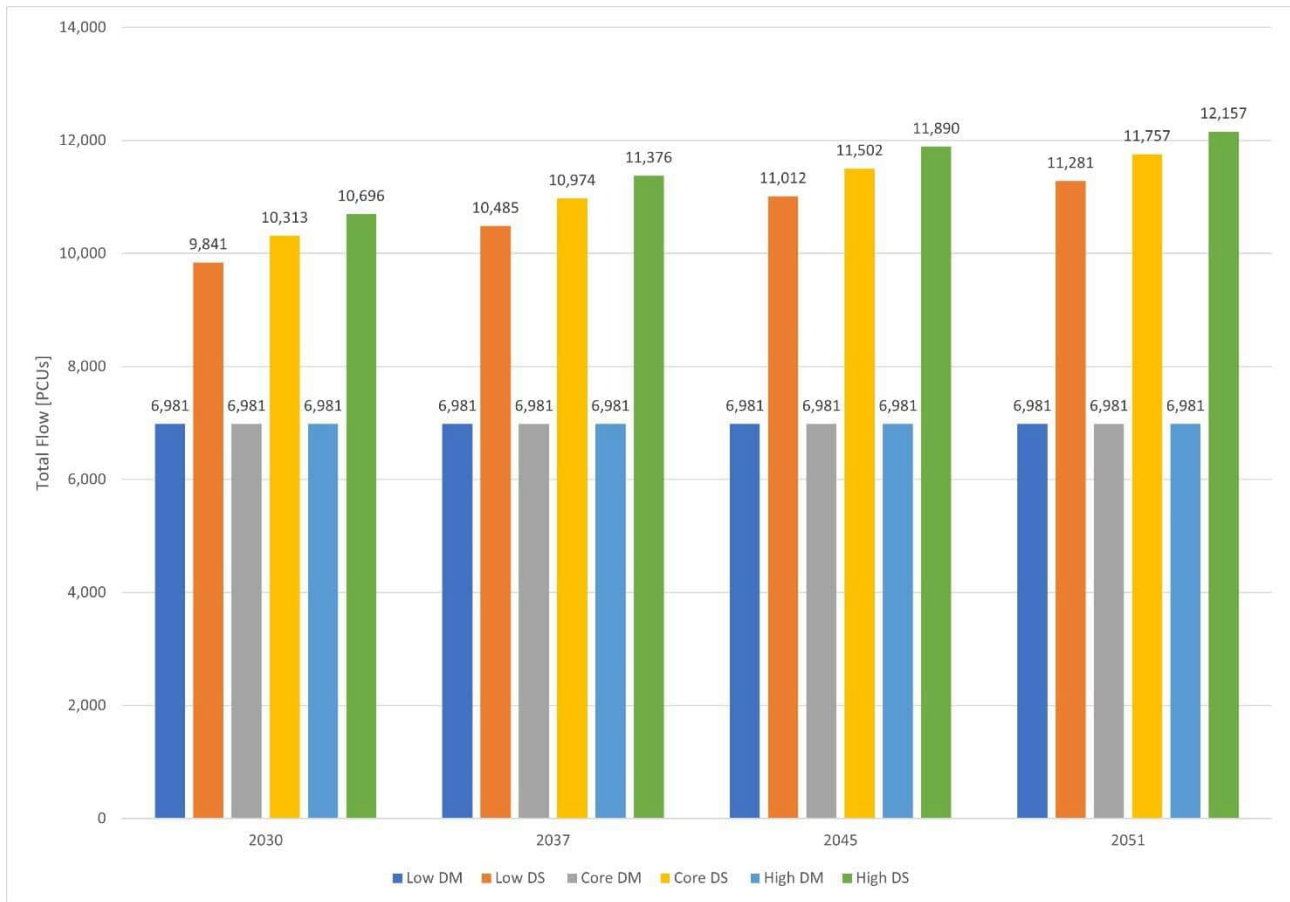
### Plate B.5 IP Northbound Cross River Flows Approaching TMC (PCU/Hr) Core, Low and High Growth Scenarios



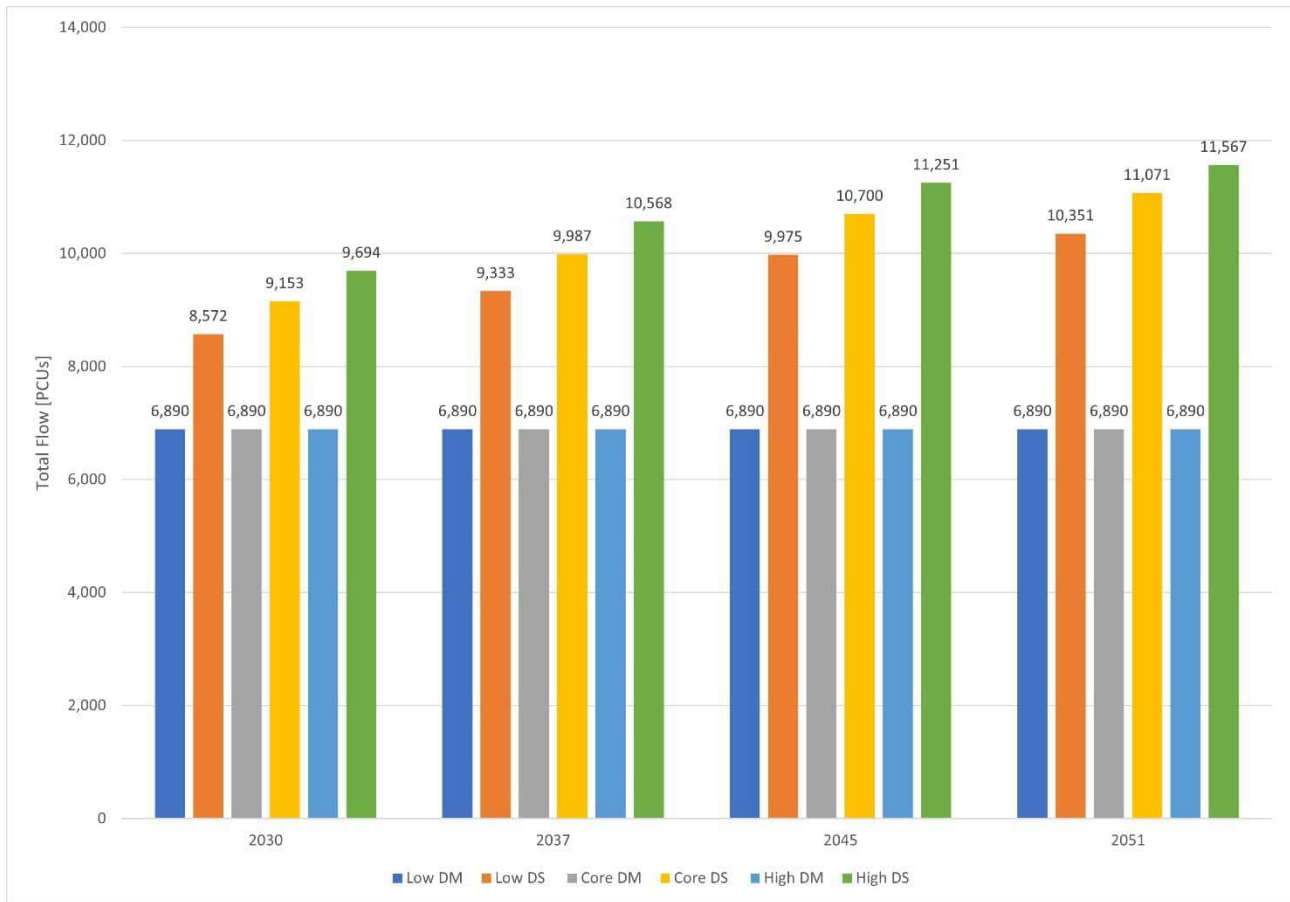
### Plate B.6 PM Northbound Cross River Flows Approaching TMC (PCU/Hr) Core, Low and High Growth Scenarios



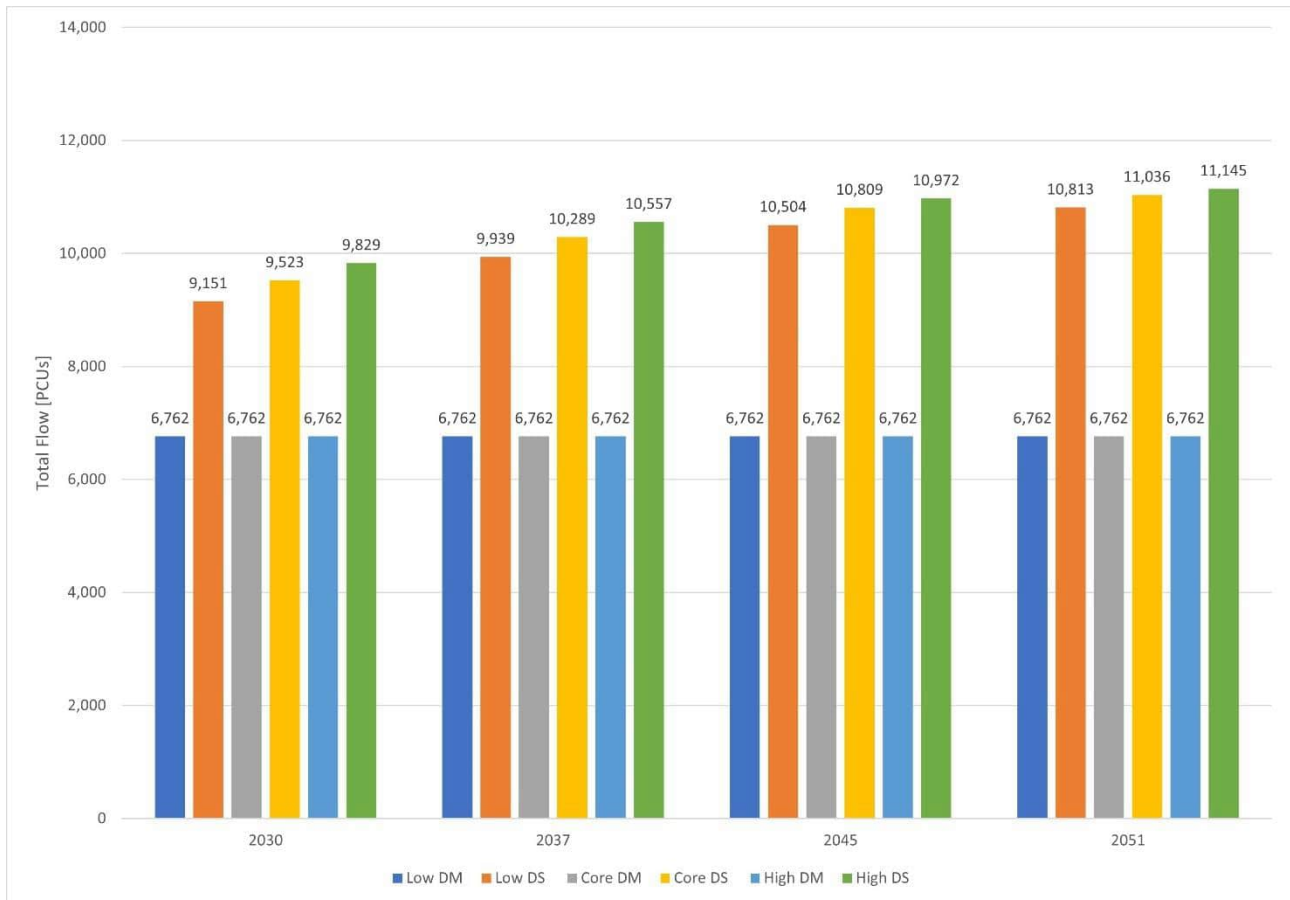
### Plate B.7 AM Northbound Cross River Flows After TMC (PCU/Hr) Core, Low and High Growth Scenarios



### Plate B.8 IP Northbound Cross River Flows After TMC (PCU/Hr) Core, Low and High Growth Scenarios



### Plate B.9 PM Northbound Cross River Flows After TMC (PCU/Hr) Core, Low and High Growth Scenarios



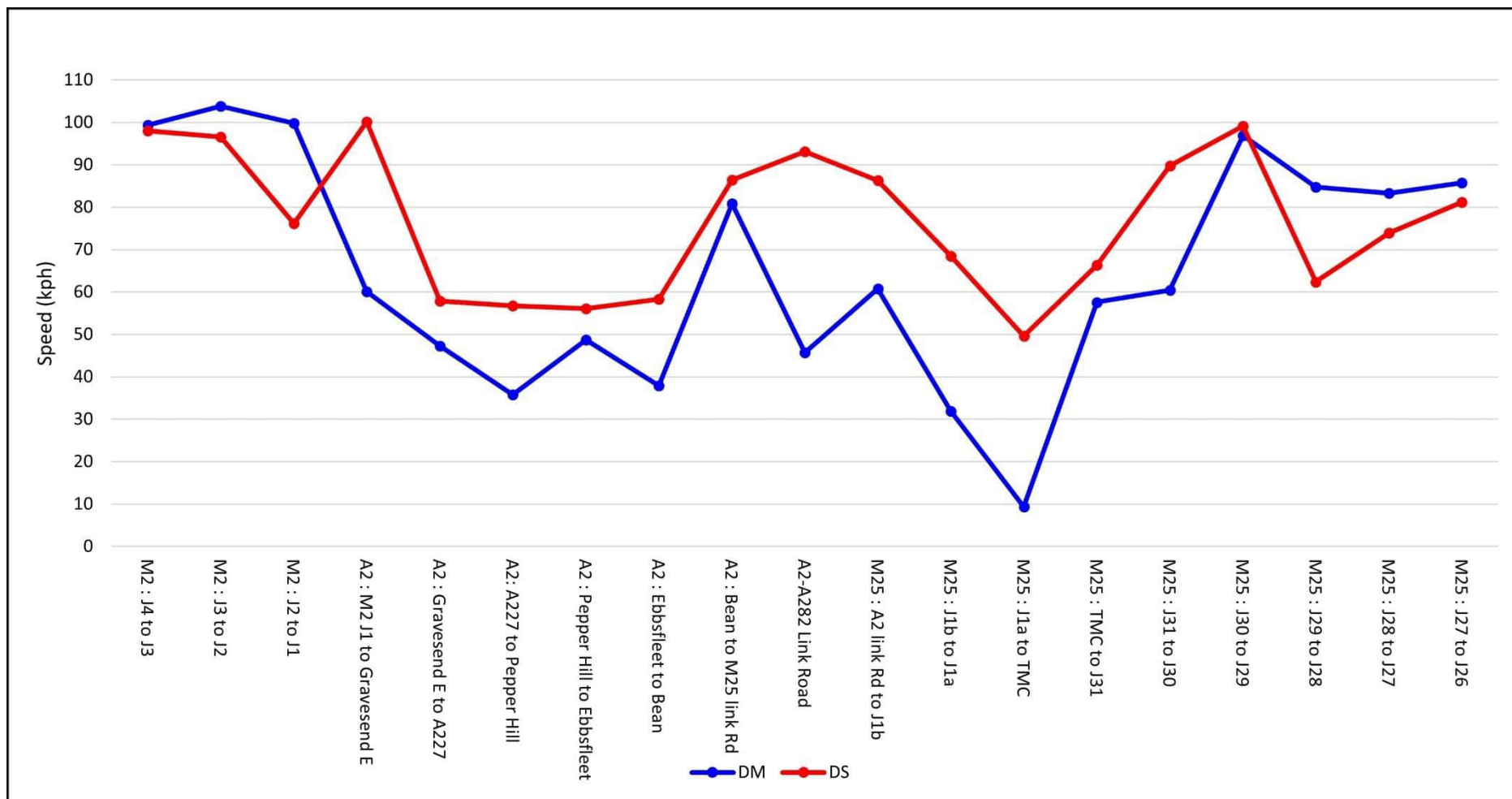
## Annex C Lower Thames Crossing Scheme Impacts – Detailed Link Based Journey Time Comparisons

- C.1.1 The analysis below provides detailed link based journey time comparisons for the route from M2 J4 to M25 J26. This is the primary route that is affected by the introduction of LTC. It would be expected that the introduction of LTC would lead to a change in path if a traveller was making this movement, from using Dartford in the Do Minimum, to using LTC in the Do Something. In the analysis that follows, the paths used are consistent so as to demonstrate the impact of LTC on overall link speeds and journey times along the corridor. Route based journey times are presented in the main document in Chapter 8.
- C.1.2 The detailed breakdown enables different sections of the route to be isolated and comparisons of with and without the scheme to be identified. The general message is, as one would expect, that average speeds increase along sections to which LTC provides relief, and average speeds decrease on the roads ‘either side’ of the scheme.
- C.1.3 The roads which will see an **increase** in average speed are:
- A2 between M2 junction 1 and M25 junction 2; and
  - M25/A282 junction 2 to M25 junction 29.
- C.1.4 The roads which will see a general **reduction** in average speed are:
- M2 south/east of junction 1; and
  - M25 north of junction 29.
- C.1.5 This analysis highlights two significant network issues which act as constraints to cross river movements:
- Lack of capacity through M25 junction 28 in both directions; and
  - Lack of capacity through M2 junction 2 southbound.
- C.1.6 The following tables and figures show that the introduction of LTC appears to only have a small impact on average speeds on the M25 southbound towards junction 28. This is because the traffic flow through junction 28 is generally at capacity (in the peak hours for all forecast years and in the IP period by 2045 and beyond). This constraint in turn results in only small changes southbound towards junction 29.
- C.1.7 Table C.1 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2030 core forecast in the AM Peak. Plate C.1 illustrates the speed differences.

**Table C.1 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26  
 Northbound – 2030 Core AM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2: J4 to J3	6,084	3.7	99	6,084	3.7	98
M2: J3 to J2	6,189	3.6	104	6,189	3.8	97
M2: J2 to J1	2,896	1.7	100	2,343	1.8	76
A2: M2 J1 to Gravesend E	3,872	3.9	60	4,488	2.7	100
A2: Gravesend E to A227	1,829	2.3	47	1,752	1.8	58
A2: A227 to Pepper Hill	2,203	3.7	36	2,203	2.3	57
A2: Pepper Hill to Ebbsfleet	1,735	2.1	49	1,735	1.9	56
A2: Ebbsfleet to Bean	2,091	3.3	38	2,091	2.2	58
A2: Bean to M25 link Rd	1,951	1.4	81	1,951	1.4	86
A2-A282 Link Road	1,481	1.9	46	1,481	1.0	93
M25: A2 link Rd to J1b	1,048	1.0	61	1,048	0.7	86
M25: J1b to J1a	1,333	2.5	32	1,333	1.2	68
M25: J1a to TMC	587	3.8	9	587	0.7	50
M25: TMC to J31	3,875	4.0	58	3,875	3.5	66
M25: J31 to J30	1,082	1.1	60	1,082	0.7	90
M25: J30 to J29	8,860	5.5	97	9,822	5.9	99
M25: J29 to J28	4,582	3.2	85	3,669	3.5	62
M25: J28 to J27	12,293	8.9	83	12,293	10.0	74
M25: J27 to J26	6,788	4.8	86	6,788	5.0	81
Overall Total	70,777	62.5	68	70,812	53.9	79
Overall Difference				35	-8.6	10.9

**Plate C.1 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2030 Core AM Peak**



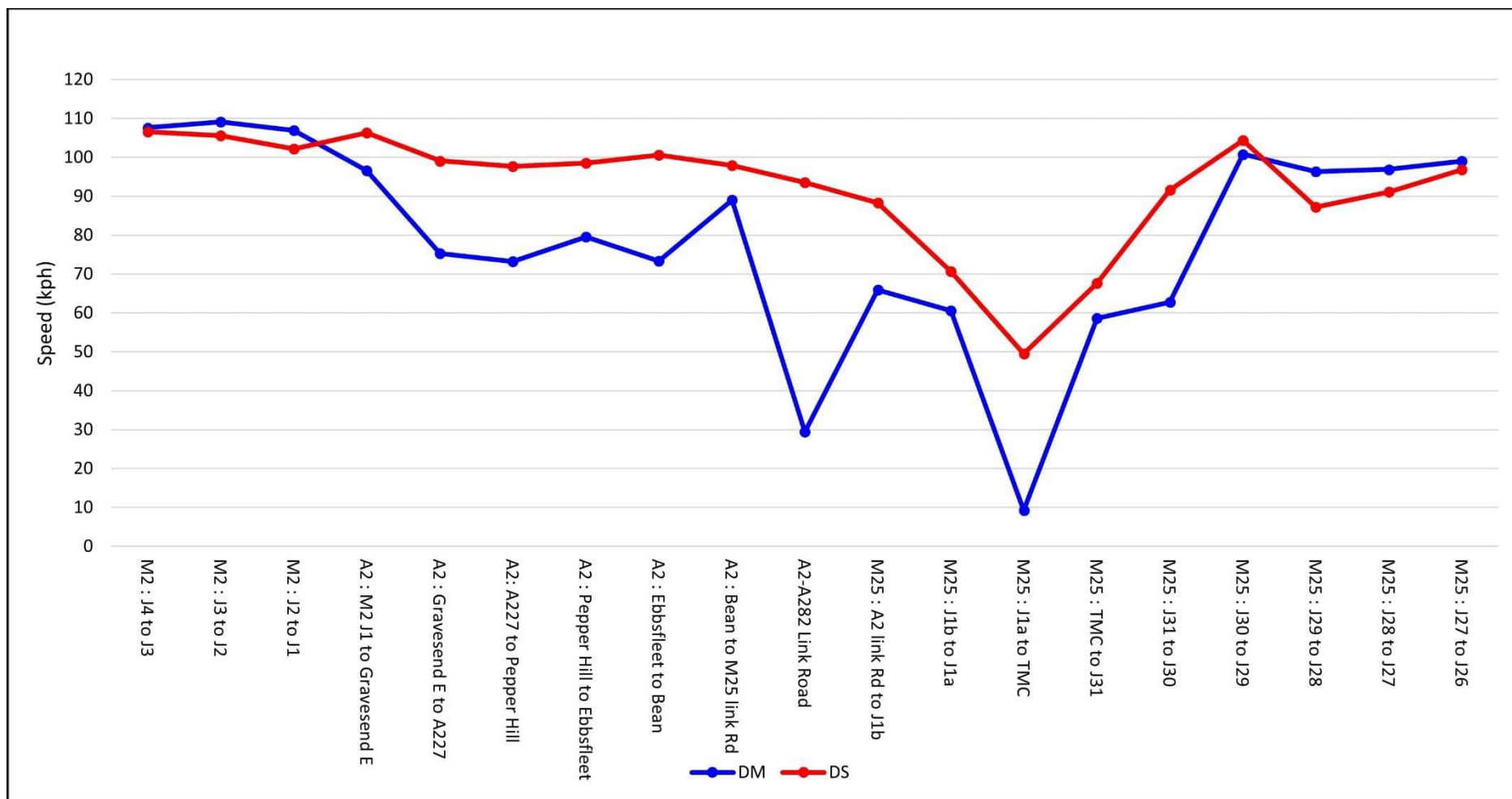


C.1.8 Table C.2 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2030 core forecast in the Inter Peak. Plate C.2 illustrates the speed differences.

**Table C.2 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26  
Northbound – 2030 Core Inter Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2: J4 to J3	6,084	3.4	108	6,084	3.4	107
M2: J3 to J2	6,189	3.4	109	6,189	3.5	106
M2: J2 to J1	2,896	1.6	107	2,343	1.4	102
A2: M2 J1 to Gravesend E	3,872	2.4	97	4,488	2.5	106
A2: Gravesend E to A227	1,829	1.5	75	1,752	1.1	99
A2: A227 to Pepper Hill	2,203	1.8	73	2,203	1.4	98
A2: Pepper Hill to Ebbsfleet	1,735	1.3	80	1,735	1.1	99
A2: Ebbsfleet to Bean	2,091	1.7	73	2,091	1.2	101
A2: Bean to M25 link Rd	1,951	1.3	89	1,951	1.2	98
A2-A282 Link Road	1,481	3.0	29	1,481	1.0	94
M25: A2 link Rd to J1b	1,048	1.0	66	1,048	0.7	88
M25: J1b to J1a	1,333	1.3	61	1,333	1.1	71
M25: J1a to TMC	587	3.8	9	587	0.7	49
M25: TMC to J31	3,875	4.0	59	3,875	3.4	68
M25: J31 to J30	1,082	1.0	63	1,082	0.7	92
M25: J30 to J29	8,860	5.3	101	9,822	5.6	104
M25: J29 to J28	4,582	2.9	96	3,669	2.5	87
M25: J28 to J27	12,293	7.6	97	12,293	8.1	91
M25: J27 to J26	6,788	4.1	99	6,788	4.2	97
Overall Total	70,777	52.4	81	70,812	44.9	95
Overall Difference				35	-7.5	13.6

**Plate C.2 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2030 Core Inter Peak**

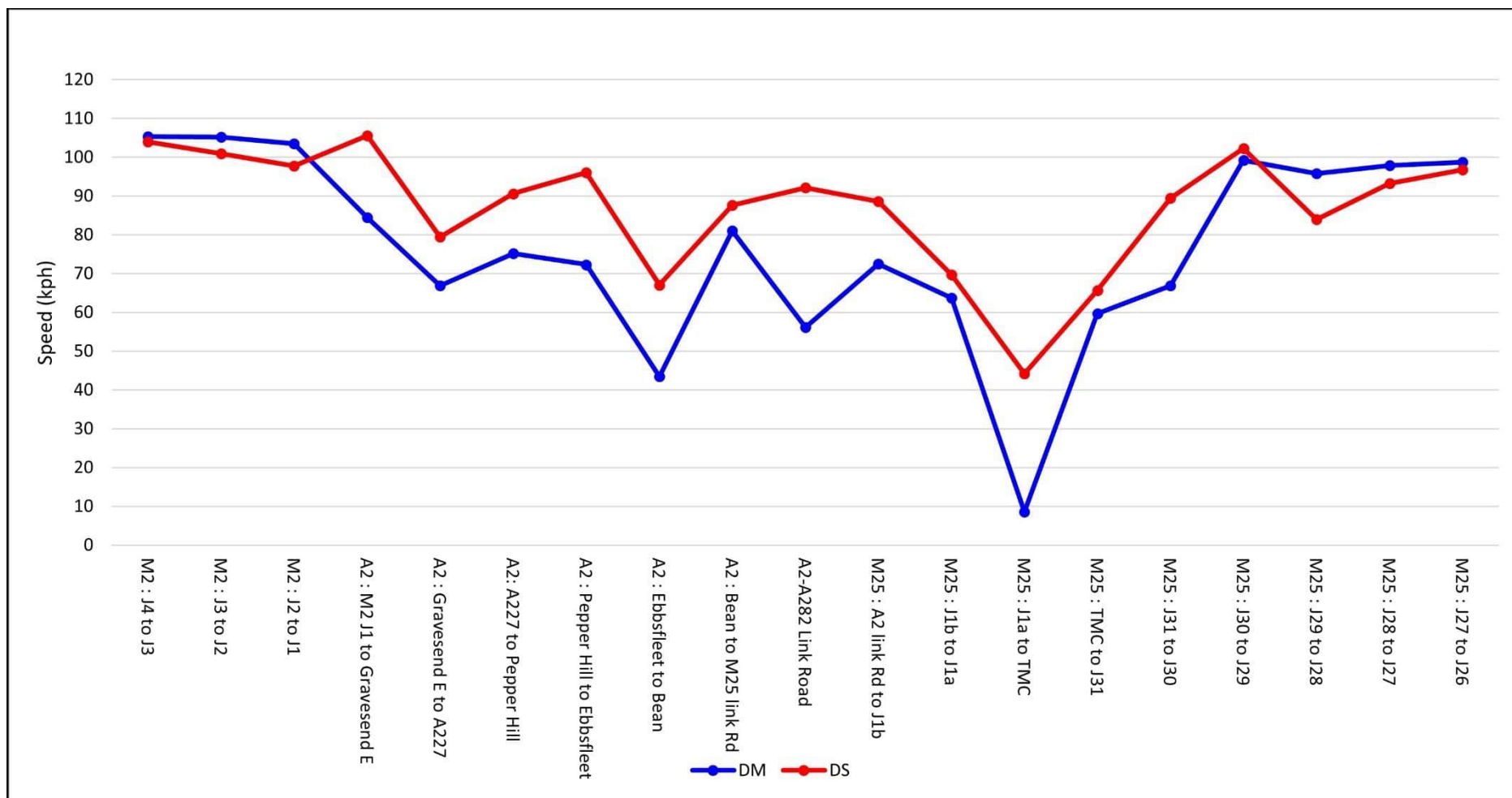


C.1.9 Table C.3 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2030 core forecast in the PM Peak. Plate C.3 illustrates the speed differences.

**Table C.3 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26  
Northbound – 2030 Core PM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2: J4 to J3	6,084	3.5	105	6,084	3.5	104
M2: J3 to J2	6,189	3.5	105	6,189	3.7	101
M2: J2 to J1	2,896	1.7	103	2,343	1.4	98
A2: M2 J1 to Gravesend E	3,872	2.8	84	4,488	2.5	106
A2: Gravesend E to A227	1,829	1.6	67	1,752	1.3	79
A2: A227 to Pepper Hill	2,203	1.8	75	2,203	1.5	91
A2: Pepper Hill to Ebbsfleet	1,735	1.4	72	1,735	1.1	96
A2: Ebbsfleet to Bean	2,091	2.9	43	2,091	1.9	67
A2: Bean to M25 link Rd	1,951	1.4	81	1,951	1.3	88
A2-A282 Link Road	1,481	1.6	56	1,481	1.0	92
M25: A2 link Rd to J1b	1,048	0.9	72	1,048	0.7	89
M25: J1b to J1a	1,333	1.3	64	1,333	1.1	70
M25: J1a to TMC	587	4.1	9	587	0.8	44
M25: TMC to J31	3,875	3.9	60	3,875	3.5	66
M25: J31 to J30	1,082	1.0	67	1,082	0.7	90
M25: J30 to J29	8,860	5.4	99	9,822	5.8	102
M25: J29 to J28	4,582	2.9	96	3,669	2.6	84
M25: J28 to J27	12,293	7.5	98	12,293	7.9	93
M25: J27 to J26	6,788	4.1	99	6,788	4.2	97
Overall Total	70,777	53.2	80	70,812	46.6	91
Overall Difference				35	-6.5	11.2

**Plate C.3 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2030 Core PM Peak**

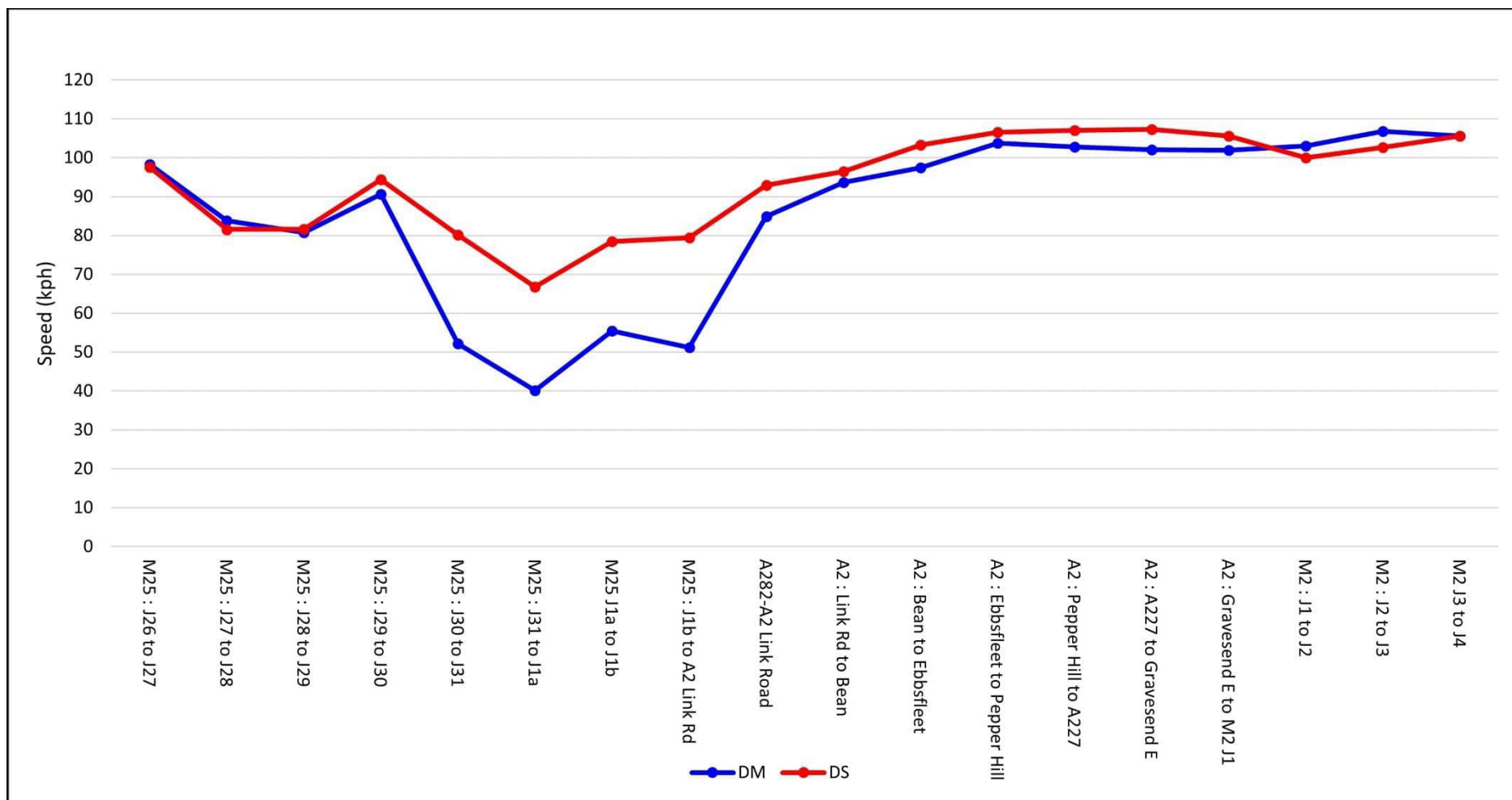


C.1.10 Table C.4 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2030 core forecast in the AM Peak. Plate C.4 illustrates the speed differences.

**Table C.4 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2030 Core AM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25: J26 to J27	7,492	4.6	98	7,492	4.6	98
M25: J27 to J28	12,486	8.9	84	12,486	9.2	82
M25: J28 to J29	4,513	3.4	81	4,658	3.4	82
M25: J29 to J30	8,625	5.7	91	7,960	5.1	94
M25: J30 to J31	1,180	1.4	52	1,492	1.1	80
M25: J31 to J1a	4,459	6.7	40	4,445	4.0	67
M25: J1a to J1b	1,382	1.5	55	1,030	0.8	78
M25: J1b to A2 Link Rd	1,226	1.4	51	1,577	1.2	79
A282-A2 Link Road	1,496	1.1	85	1,295	0.8	93
A2: Link Rd to Bean	1,473	0.9	94	1,231	0.8	96
A2: Bean to Ebbsfleet	3,038	1.9	97	3,252	1.9	103
A2: Ebbsfleet to Pepper Hill	1,076	0.6	104	1,198	0.7	107
A2: Pepper Hill to A227	1,877	1.1	103	1,216	0.7	107
A2: A227 to Gravesend E	2,095	1.2	102	1,782	1.0	107
A2: Gravesend E to M2 J1	4,234	2.5	102	5,469	3.1	106
M2: J1 to J2	2,481	1.4	103	1,493	0.9	100
M2: J2 to J3	6,405	3.6	107	7,358	4.3	103
M2: J3 to J4	5,937	3.4	106	5,681	3.2	106
Overall Total	71,472	51.3	84	71,111	46.7	91
Overall Difference				-362	-4.5	8

**Plate C.4 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2030 Core AM Peak**

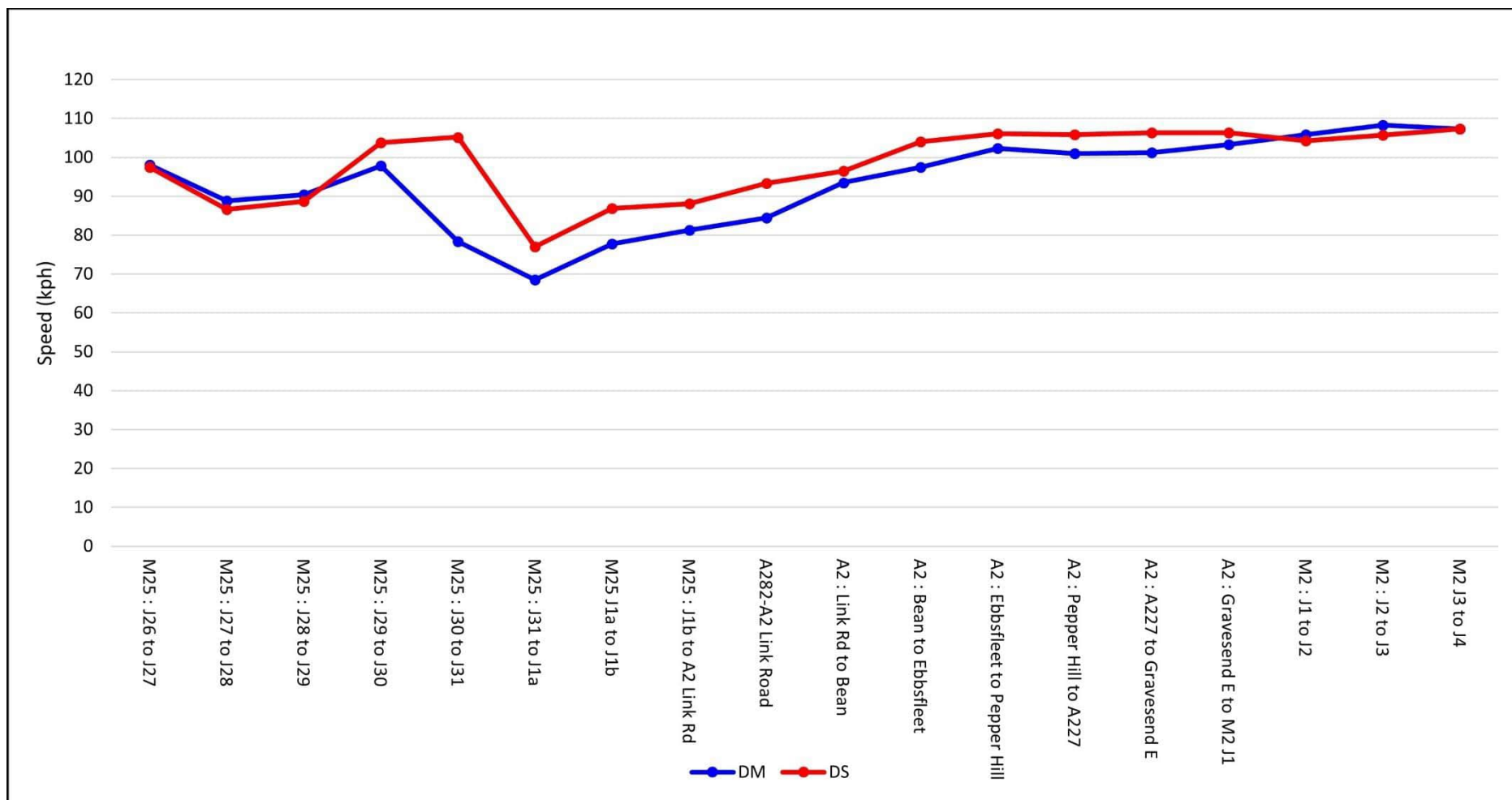


C.1.11 Table C.5 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2030 core forecast in the Inter Peak. Plate C.5 illustrates the speed differences.

**Table C.5 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2030 Core Inter Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25: J26 to J27	7,492	4.6	98	7,492	4.6	97
M25: J27 to J28	12,486	8.4	89	12,486	8.6	87
M25: J28 to J29	4,513	3.0	90	4,658	3.1	89
M25: J29 to J30	8,625	5.3	98	7,960	4.6	104
M25: J30 to J31	1,180	0.9	78	1,492	0.9	105
M25: J31 to J1a	4,459	3.9	69	4,445	3.5	77
M25: J1a to J1b	1,382	1.1	78	1,030	0.7	87
M25: J1b to A2 Link Rd	1,226	0.9	81	1,577	1.1	88
A282-A2 Link Road	1,496	1.1	84	1,295	0.8	93
A2: Link Rd to Bean	1,473	0.9	94	1,231	0.8	96
A2: Bean to Ebbsfleet	3,038	1.9	97	3,252	1.9	104
A2: Ebbsfleet to Pepper Hill	1,076	0.6	102	1,198	0.7	106
A2: Pepper Hill to A227	1,877	1.1	101	1,216	0.7	106
A2: A227 to Gravesend E	2,095	1.2	101	1,782	1.0	106
A2: Gravesend E to M2 J1	4,234	2.5	103	5,469	3.1	106
M2: J1 to J2	2,481	1.4	106	1,493	0.9	104
M2: J2 to J3	6,405	3.6	108	7,358	4.2	106
M2: J3 to J4	5,937	3.3	107	5,681	3.2	107
Overall Total	71,472	45.7	94	71,111	44.3	96
Overall Difference				-362	-1.4	3

**Plate C.5 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2030 Core Inter Peak**



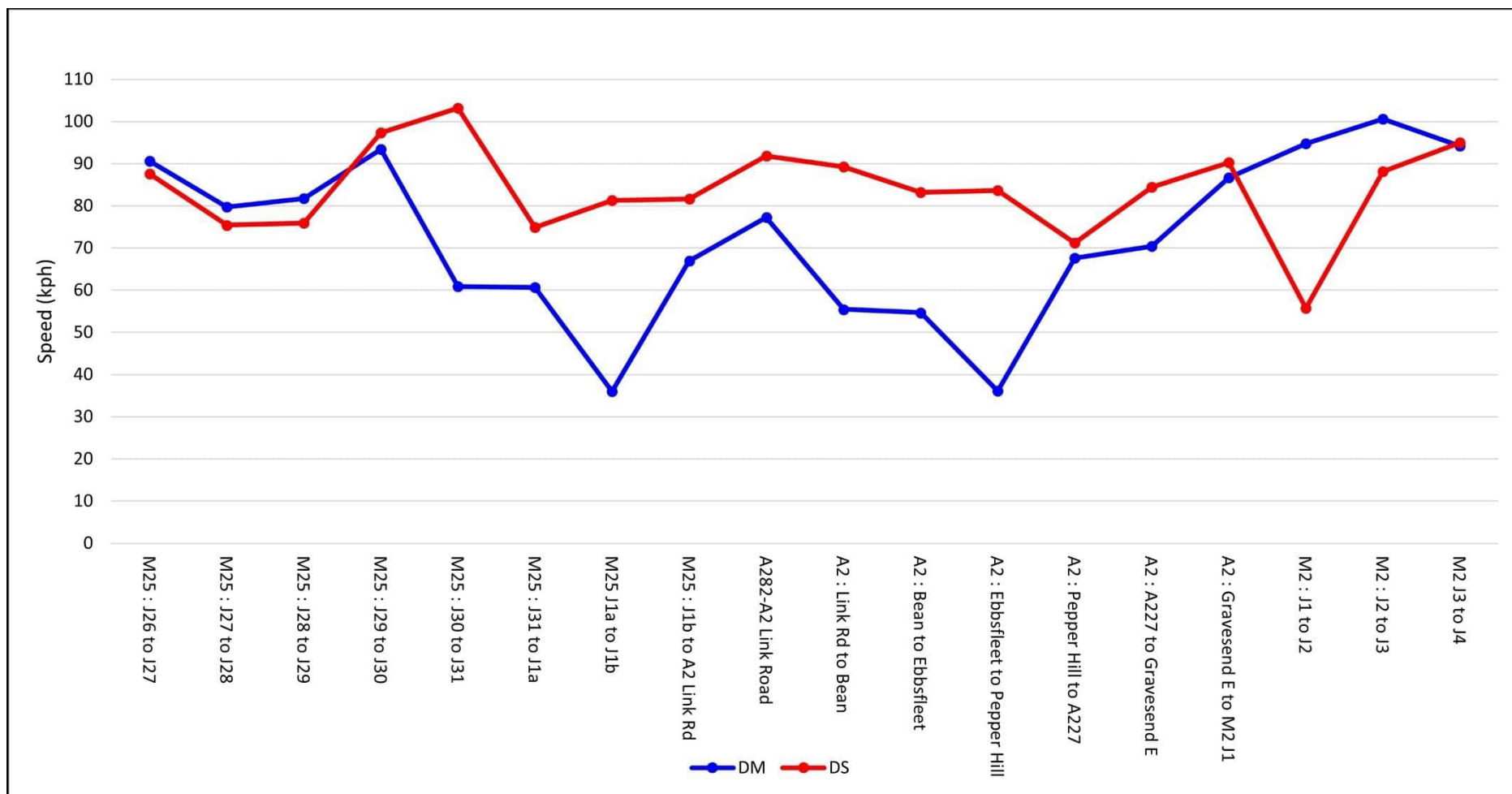


C.1.12 Table C.6 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2030 core forecast in the PM Peak. Plate C.6 illustrates the speed differences.

**Table C.6 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4  
 Southbound – 2030 Core PM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25: J26 to J27	7,492	5.0	91	7,492	5.1	88
M25: J27 to J28	12,486	9.4	80	12,486	9.9	75
M25: J28 to J29	4,513	3.3	82	4,658	3.7	76
M25: J29 to J30	8,625	5.5	93	7,960	4.9	97
M25: J30 to J31	1,180	1.2	61	1,492	0.9	103
M25: J31 to J1a	4,459	4.4	61	4,445	3.6	75
M25: J1a to J1b	1,382	2.3	36	1,030	0.8	81
M25: J1b to A2 Link Rd	1,226	1.1	67	1,577	1.2	82
A282-A2 Link Road	1,496	1.2	77	1,295	0.8	92
A2: Link Rd to Bean	1,473	1.6	55	1,231	0.8	89
A2: Bean to Ebbsfleet	3,038	3.3	55	3,252	2.3	83
A2: Ebbsfleet to Pepper Hill	1,076	1.8	36	1,198	0.9	84
A2: Pepper Hill to A227	1,877	1.7	68	1,216	1.0	71
A2: A227 to Gravesend E	2,095	1.8	70	1,782	1.3	84
A2: Gravesend E to M2 J1	4,234	2.9	87	5,469	3.6	90
M2: J1 to J2	2,481	1.6	95	1,493	1.6	56
M2: J2 to J3	6,405	3.8	101	7,358	5.0	88
M2: J3 to J4	5,937	3.8	94	5,681	3.6	95
Overall Total	71,472	55.6	77	71,111	51.0	84
Overall Difference				-362	-4.6	7

**Plate C.6 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2030 Core PM Peak**

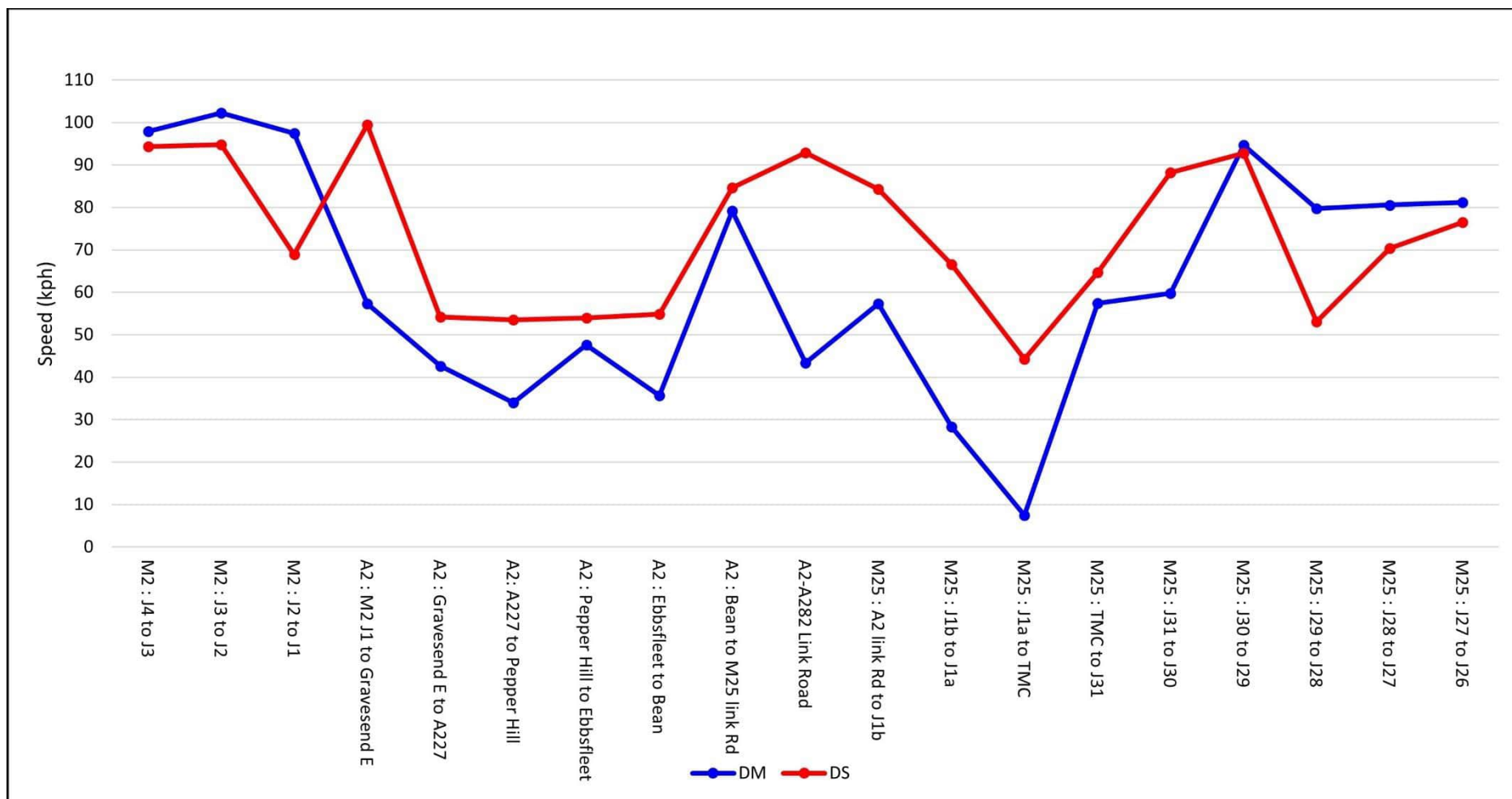


C.1.13 Table C.7 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2037 core forecast in the AM Peak. Plate C.7 illustrates the speed differences.

**Table C.7 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26  
Northbound – 2037 Core AM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2: J4 to J3	6,084	3.7	97.8	6,084	3.9	94.3
M2: J3 to J2	6,189	3.6	102.2	6,189	3.9	94.8
M2: J2 to J1	2,896	1.8	97.5	2,343	2.0	68.9
A2: M2 J1 to Gravesend E	3,872	4.1	57.3	4,488	2.7	99.4
A2: Gravesend E to A227	1,829	2.6	42.6	1,752	1.9	54.2
A2: A227 to Pepper Hill	2,203	3.9	34.0	2,203	2.5	53.5
A2: Pepper Hill to Ebbsfleet	1,735	2.2	47.6	1,735	1.9	54.0
A2: Ebbsfleet to Bean	2,091	3.5	35.7	2,091	2.3	54.8
A2: Bean to M25 link Rd	1,951	1.5	79.2	1,951	1.4	84.6
A2-A282 Link Road	1,481	2.0	43.4	1,481	1.0	92.8
M25: A2 link Rd to J1b	1,048	1.1	57.3	1,048	0.7	84.2
M25: J1b to J1a	1,333	2.8	28.3	1,333	1.2	66.6
M25: J1a to TMC	587	4.7	7.5	587	0.8	44.2
M25: TMC to J31	3,875	4.1	57.4	3,875	3.6	64.7
M25: J31 to J30	1,082	1.1	59.8	1,082	0.7	88.2
M25: J30 to J29	8,860	5.6	94.6	9,822	6.4	92.7
M25: J29 to J28	4,582	3.5	79.7	3,669	4.1	53.1
M25: J28 to J27	12,293	9.2	80.6	12,293	10.5	70.4
M25: J27 to J26	6,788	5.0	81.2	6,788	5.3	76.5
Overall Total	70,777	65.9	64.4	70,812	56.9	74.7
Overall Difference				35	-9.0	10.3

**Plate C.7 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2037 Core AM Peak**

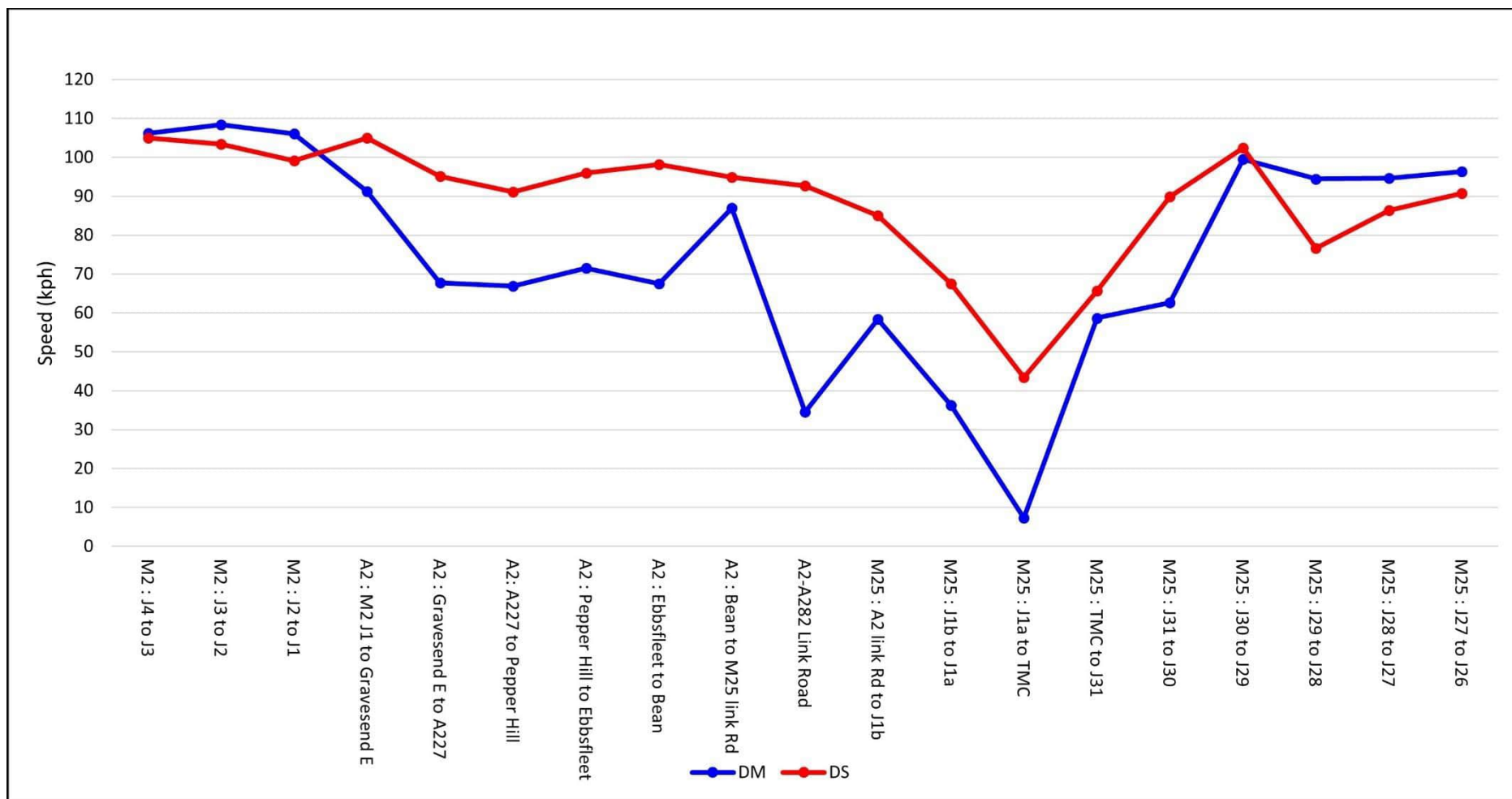


C.1.14 Table C.8 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2037 core forecast in the Inter Peak. Plate C.8 illustrates the speed differences.

**Table C.8 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26  
Northbound – 2037 Core Inter Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2: J4 to J3	6,084	3.4	106.2	6,084	3.5	105.0
M2: J3 to J2	6,189	3.4	108.4	6,189	3.6	103.4
M2: J2 to J1	2,896	1.6	106.1	2,343	1.4	99.1
A2: M2 J1 to Gravesend E	3,872	2.5	91.3	4,488	2.6	105.0
A2: Gravesend E to A227	1,829	1.6	67.7	1,752	1.1	95.1
A2: A227 to Pepper Hill	2,203	2.0	66.9	2,203	1.5	91.1
A2: Pepper Hill to Ebbsfleet	1,735	1.5	71.5	1,735	1.1	96.0
A2: Ebbsfleet to Bean	2,091	1.9	67.6	2,091	1.3	98.2
A2: Bean to M25 link Rd	1,951	1.3	86.9	1,951	1.2	94.9
A2-A282 Link Road	1,481	2.6	34.6	1,481	1.0	92.7
M25: A2 link Rd to J1b	1,048	1.1	58.4	1,048	0.7	85.0
M25: J1b to J1a	1,333	2.2	36.3	1,333	1.2	67.5
M25: J1a to TMC	587	4.8	7.3	587	0.8	43.4
M25: TMC to J31	3,875	4.0	58.7	3,875	3.5	65.7
M25: J31 to J30	1,082	1.0	62.7	1,082	0.7	89.9
M25: J30 to J29	8,860	5.3	99.5	9,822	5.8	102.4
M25: J29 to J28	4,582	2.9	94.5	3,669	2.9	76.7
M25: J28 to J27	12,293	7.8	94.6	12,293	8.5	86.4
M25: J27 to J26	6,788	4.2	96.3	6,788	4.5	90.7
Overall Total	70,777	55.3	76.9	70,812	46.8	90.8
Overall Difference				35	-8.4	13.9

**Plate C.8 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2037 Core Inter Peak**

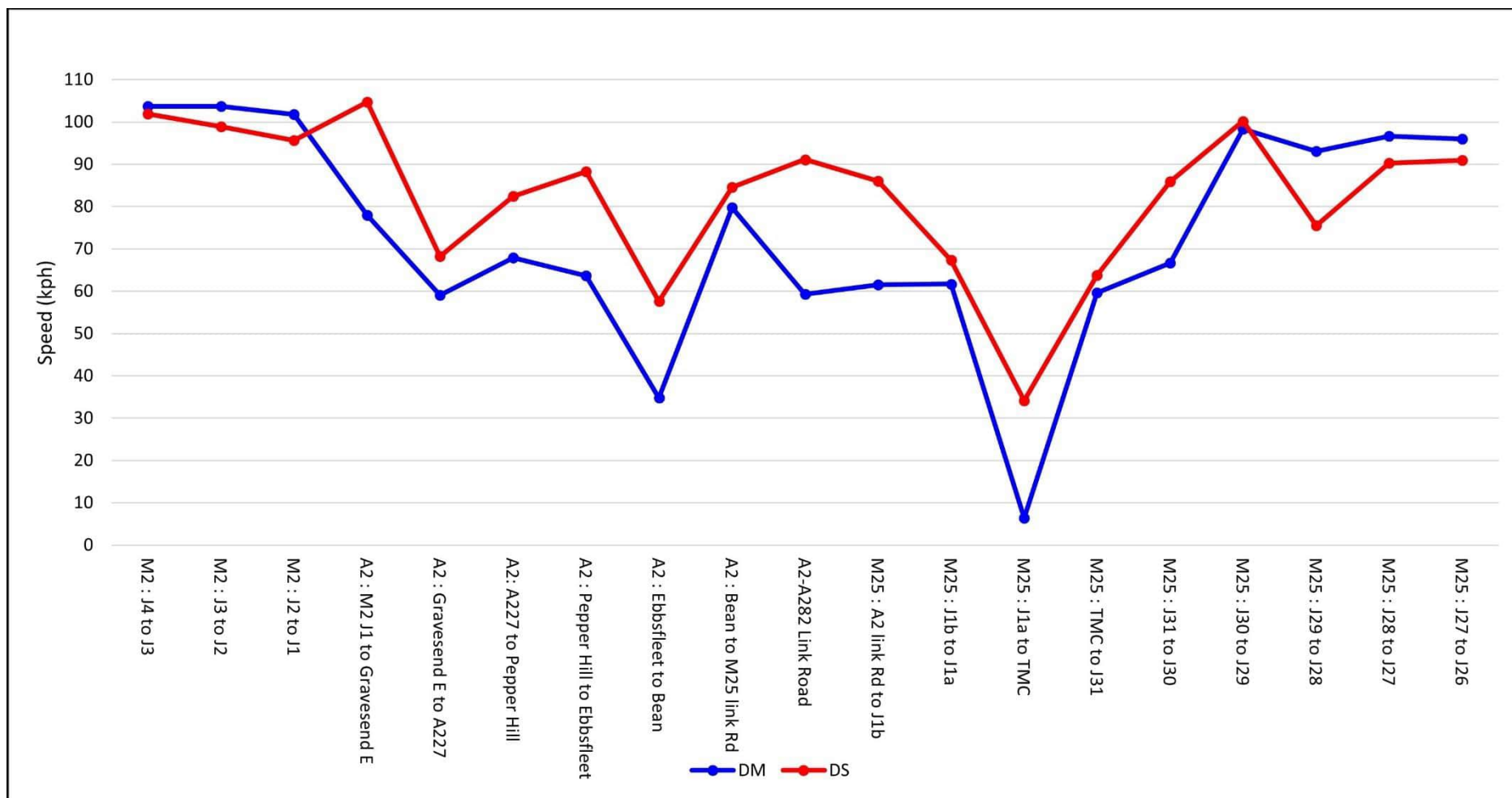


C.1.15 Table C.9 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2037 core forecast in the PM Peak. Plate C.9 illustrates the speed differences.

**Table C.9 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26  
Northbound – 2037 Core PM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2: J4 to J3	6,084	3.5	103.8	6,084	3.6	101.9
M2: J3 to J2	6,189	3.6	103.7	6,189	3.8	98.9
M2: J2 to J1	2,896	1.7	101.8	2,343	1.5	95.6
A2: M2 J1 to Gravesend E	3,872	3.0	78.0	4,488	2.6	104.7
A2: Gravesend E to A227	1,829	1.9	59.0	1,752	1.5	68.3
A2: A227 to Pepper Hill	2,203	1.9	67.9	2,203	1.6	82.4
A2: Pepper Hill to Ebbsfleet	1,735	1.6	63.7	1,735	1.2	88.2
A2: Ebbsfleet to Bean	2,091	3.6	34.8	2,091	2.2	57.6
A2: Bean to M25 link Rd	1,951	1.5	79.8	1,951	1.4	84.6
A2-A282 Link Road	1,481	1.5	59.3	1,481	1.0	91.1
M25: A2 link Rd to J1b	1,048	1.0	61.5	1,048	0.7	86.1
M25: J1b to J1a	1,333	1.3	61.7	1,333	1.2	67.4
M25: J1a to TMC	587	5.5	6.4	587	1.0	34.2
M25: TMC to J31	3,875	3.9	59.6	3,875	3.6	63.8
M25: J31 to J30	1,082	1.0	66.7	1,082	0.8	85.9
M25: J30 to J29	8,860	5.4	98.3	9,822	5.9	100.2
M25: J29 to J28	4,582	3.0	93.1	3,669	2.9	75.5
M25: J28 to J27	12,293	7.6	96.7	12,293	8.2	90.3
M25: J27 to J26	6,788	4.2	96.0	6,788	4.5	90.9
Overall Total	70,777	56.7	74.9	70,812	49.0	86.7
Overall Difference				35	-7.7	11.8

**Plate C.9 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2037 Core PM Peak**



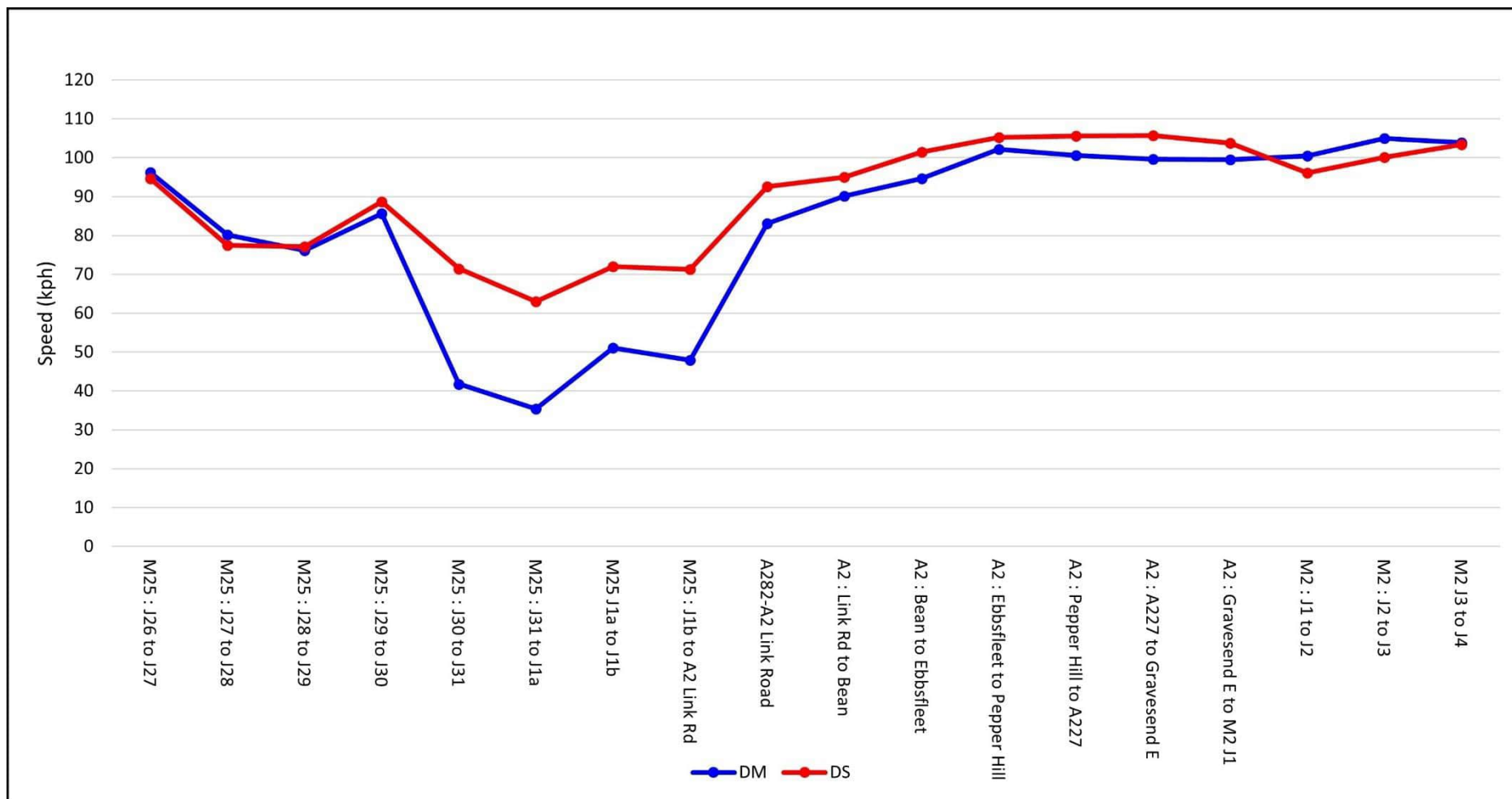


C.1.16 Table C.10 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2037 core forecast in the AM Peak. Plate C.10 illustrates the speed differences.

**Table C.10 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4  
 Southbound – 2037 Core AM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25: J26 to J27	7,492	4.7	96.2	7,492	4.8	94.6
M25: J27 to J28	12,486	9.3	80.2	12,486	9.7	77.4
M25: J28 to J29	4,513	3.6	76.1	4,658	3.6	77.1
M25: J29 to J30	8,625	6.0	85.7	7,960	5.4	88.6
M25: J30 to J31	1,180	1.7	41.8	1,492	1.3	71.4
M25: J31 to J1a	4,459	7.6	35.4	4,445	4.2	63.0
M25: J1a to J1b	1,382	1.6	51.0	1,030	0.9	72.0
M25: J1b to A2 Link Rd	1,226	1.5	47.9	1,577	1.3	71.3
A282-A2 Link Road	1,496	1.1	83.1	1,295	0.8	92.5
A2: Link Rd to Bean	1,473	1.0	90.2	1,231	0.8	95.0
A2: Bean to Ebbsfleet	3,038	1.9	94.7	3,252	1.9	101.5
A2: Ebbsfleet to Pepper Hill	1,076	0.6	102.2	1,198	0.7	105.2
A2: Pepper Hill to A227	1,877	1.1	100.6	1,216	0.7	105.5
A2: A227 to Gravesend E	2,095	1.3	99.6	1,782	1.0	105.6
A2: Gravesend E to M2 J1	4,234	2.6	99.5	5,469	3.2	103.8
M2: J1 to J2	2,481	1.5	100.5	1,493	0.9	96.1
M2: J2 to J3	6,405	3.7	105.0	7,358	4.4	100.1
M2: J3 to J4	5,937	3.4	103.8	5,681	3.3	103.4
Overall Total	71,472	54.1	79.2	71,111	48.8	87.4
Overall Difference				-362	-5.3	8.2

**Plate C.10 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2037 Core AM Peak**

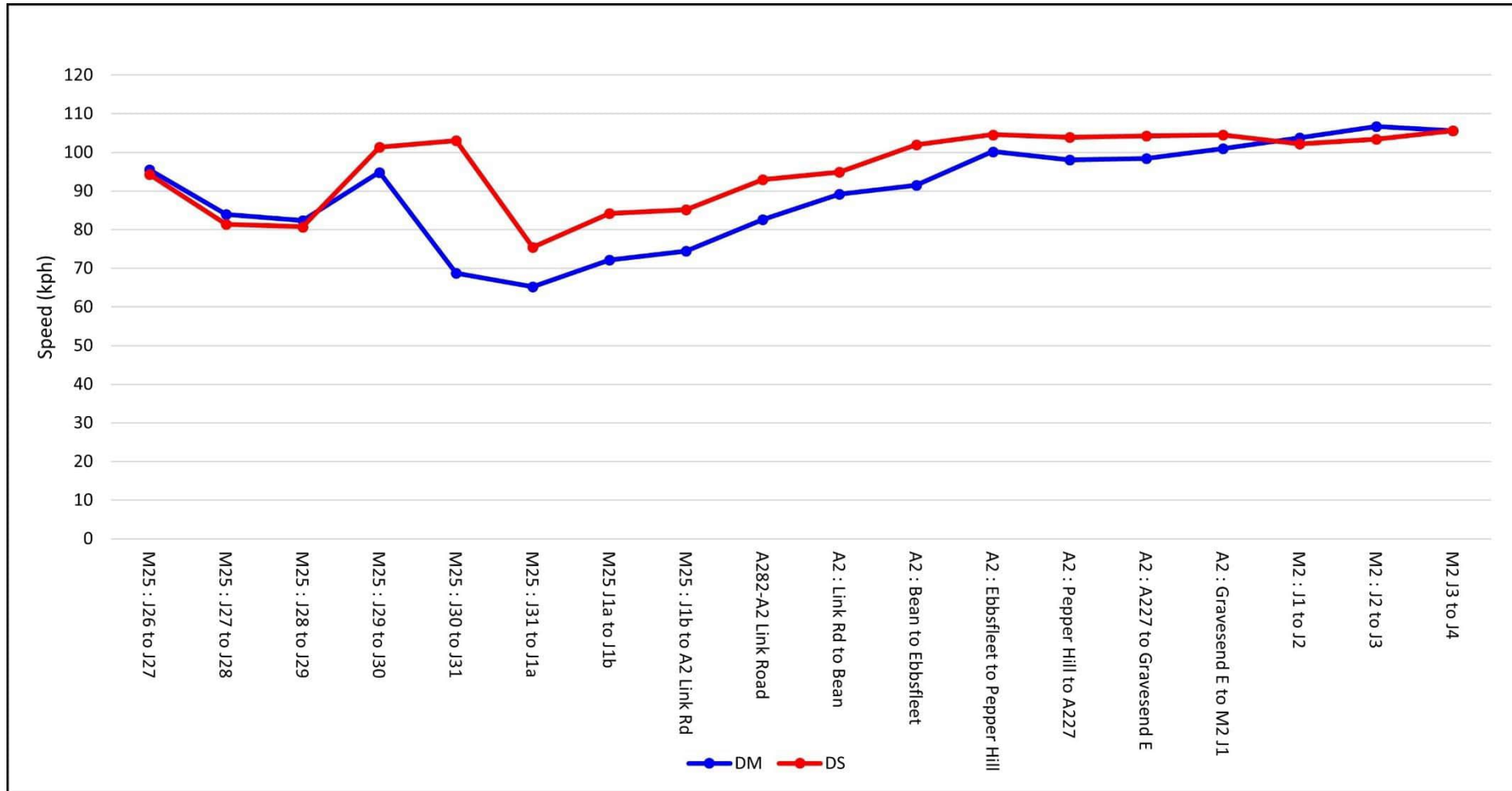


C.1.17 Table C.11 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2037 core forecast in the Inter Peak. Plate C.11 illustrates the speed differences.

**Table C.11 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4  
 Southbound – 2037 Core Inter Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25: J26 to J27	7,492	4.7	95.5	7,492	4.8	94.3
M25: J27 to J28	12,486	8.9	83.9	12,486	9.2	81.4
M25: J28 to J29	4,513	3.3	82.4	4,658	3.5	80.7
M25: J29 to J30	8,625	5.5	94.8	7,960	4.7	101.4
M25: J30 to J31	1,180	1.0	68.7	1,492	0.9	103.1
M25: J31 to J1a	4,459	4.1	65.2	4,445	3.5	75.5
M25: J1a to J1b	1,382	1.1	72.1	1,030	0.7	84.2
M25: J1b to A2 Link Rd	1,226	1.0	74.5	1,577	1.1	85.2
A282-A2 Link Road	1,496	1.1	82.6	1,295	0.8	92.9
A2: Link Rd to Bean	1,473	1.0	89.1	1,231	0.8	94.9
A2: Bean to Ebbsfleet	3,038	2.0	91.5	3,252	1.9	102.0
A2: Ebbsfleet to Pepper Hill	1,076	0.6	100.2	1,198	0.7	104.6
A2: Pepper Hill to A227	1,877	1.1	98.1	1,216	0.7	103.9
A2: A227 to Gravesend E	2,095	1.3	98.4	1,782	1.0	104.3
A2: Gravesend E to M2 J1	4,234	2.5	101.0	5,469	3.1	104.6
M2: J1 to J2	2,481	1.4	103.7	1,493	0.9	102.3
M2: J2 to J3	6,405	3.6	106.7	7,358	4.3	103.4
M2: J3 to J4	5,937	3.4	105.6	5,681	3.2	105.7
Overall Total	71,472	47.7	89.9	71,111	45.8	93.1
Overall Difference				-362	-1.9	3.2

**Plate C.11 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2037 Core Inter Peak**

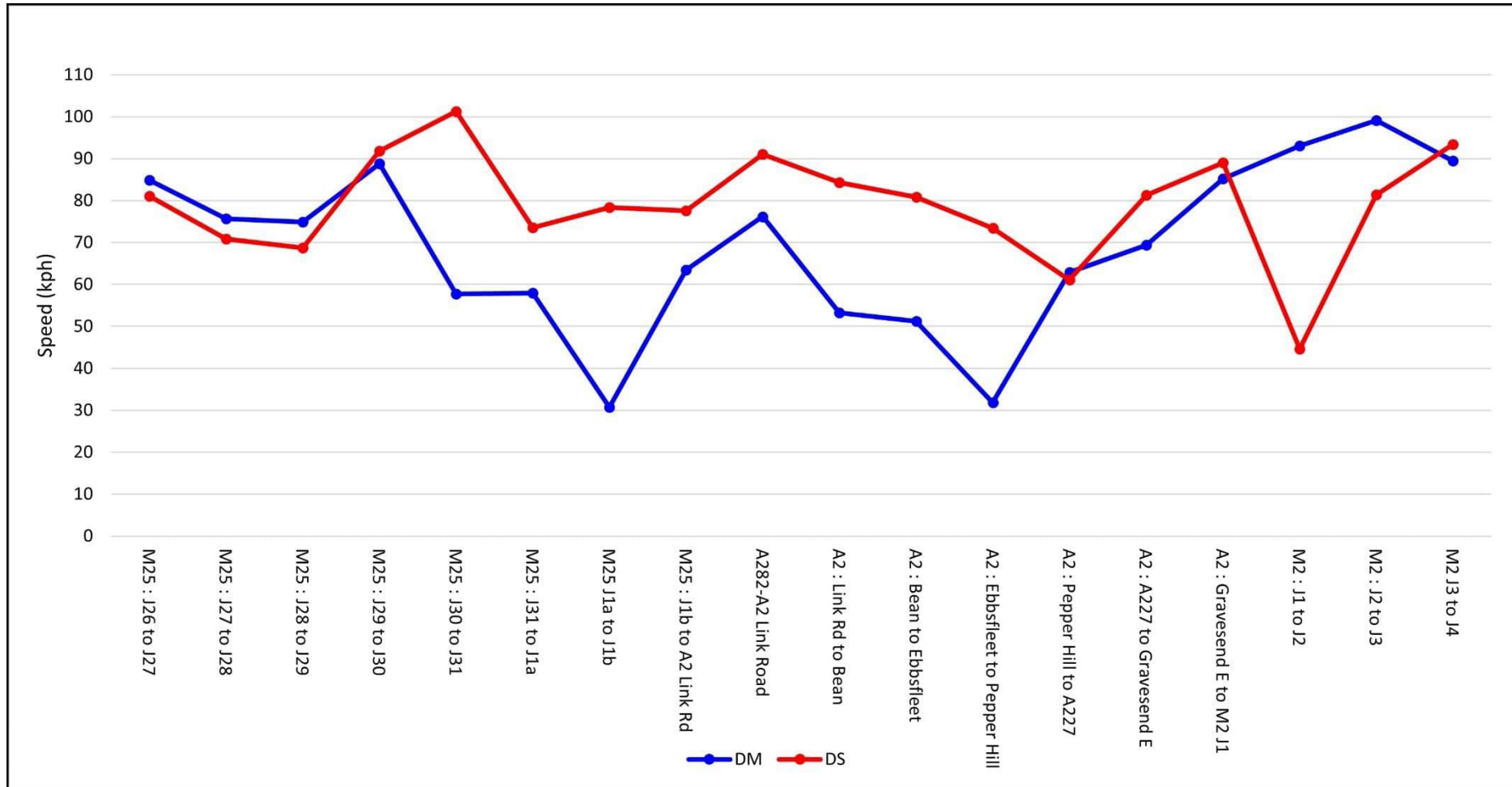


C.1.18 Table C.12 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2037 core forecast in the PM Peak. Plate C.12 illustrates the speed differences.

**Table C.12 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4  
 Southbound – 2037 Core PM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25: J26 to J27	7,492	5.3	84.9	7,492	5.5	81.0
M25: J27 to J28	12,486	9.9	75.6	12,486	10.6	70.8
M25: J28 to J29	4,513	3.6	74.9	4,658	4.1	68.7
M25: J29 to J30	8,625	5.8	88.8	7,960	5.2	91.9
M25: J30 to J31	1,180	1.2	57.8	1,492	0.9	101.3
M25: J31 to J1a	4,459	4.6	58.0	4,445	3.6	73.6
M25: J1a to J1b	1,382	2.7	30.7	1,030	0.8	78.4
M25: J1b to A2 Link Rd	1,226	1.2	63.4	1,577	1.2	77.6
A282-A2 Link Road	1,496	1.2	76.2	1,295	0.9	91.1
A2: Link Rd to Bean	1,473	1.7	53.2	1,231	0.9	84.3
A2: Bean to Ebbsfleet	3,038	3.6	51.2	3,252	2.4	80.9
A2: Ebbsfleet to Pepper Hill	1,076	2.0	31.8	1,198	1.0	73.5
A2: Pepper Hill to A227	1,877	1.8	62.9	1,216	1.2	61.1
A2: A227 to Gravesend E	2,095	1.8	69.4	1,782	1.3	81.3
A2: Gravesend E to M2 J1	4,234	3.0	85.3	5,469	3.7	89.1
M2: J1 to J2	2,481	1.6	93.1	1,493	2.0	44.6
M2: J2 to J3	6,405	3.9	99.2	7,358	5.4	81.4
M2: J3 to J4	5,937	4.0	89.5	5,681	3.6	93.4
Overall Total	71,472	58.8	72.9	71,111	54.3	78.6
Overall Difference				-362	-4.5	5.7

**Plate C.12 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2037 Core PM Peak**

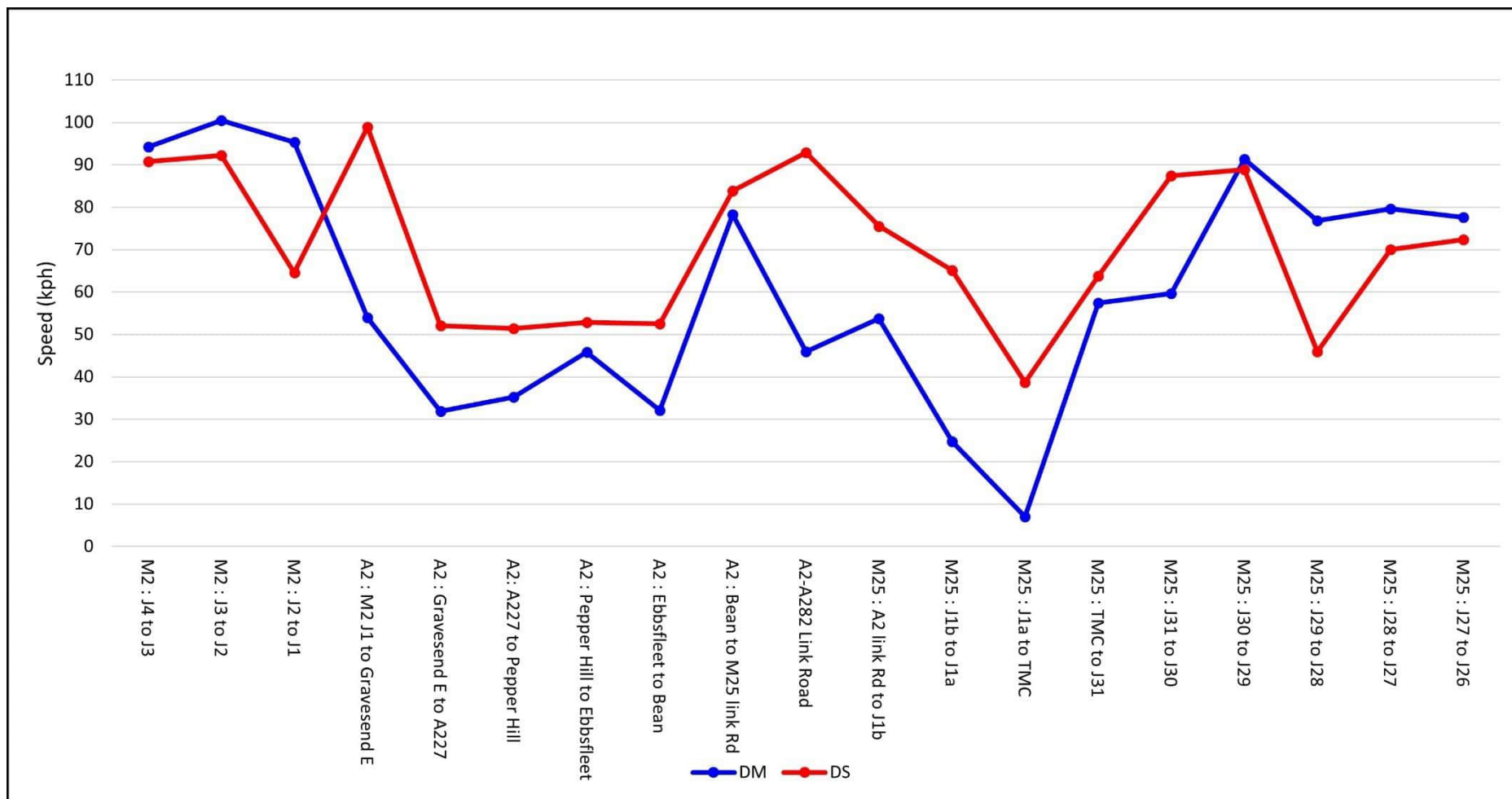


C.1.19 Table C.13 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2045 core forecast in the AM Peak. Plate C.13 illustrates the speed differences.

**Table C.13 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26  
Northbound – 2045 Core AM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2: J4 to J3	6,084	3.9	94.2	6,084	4.0	90.7
M2: J3 to J2	6,189	3.7	100.4	6,189	4.0	92.2
M2: J2 to J1	2,896	1.8	95.3	2,343	2.2	64.6
A2: M2 J1 to Gravesend E	3,872	4.3	53.9	4,488	2.7	98.9
A2: Gravesend E to A227	1,829	3.4	31.9	1,752	2.0	52.1
A2: A227 to Pepper Hill	2,203	3.8	35.2	2,203	2.6	51.4
A2: Pepper Hill to Ebbsfleet	1,735	2.3	45.8	1,735	2.0	52.8
A2: Ebbsfleet to Bean	2,091	3.9	32.1	2,091	2.4	52.5
A2: Bean to M25 link Rd	1,951	1.5	78.3	1,951	1.4	83.9
A2-A282 Link Road	1,481	1.9	45.9	1,481	1.0	92.9
M25: A2 link Rd to J1b	1,048	1.2	53.8	1,048	0.8	75.5
M25: J1b to J1a	1,333	3.2	24.7	1,333	1.2	65.1
M25: J1a to TMC	587	5.0	7.0	587	0.9	38.6
M25: TMC to J31	3,875	4.1	57.4	3,875	3.6	63.8
M25: J31 to J30	1,082	1.1	59.6	1,082	0.7	87.4
M25: J30 to J29	8,860	5.8	91.3	9,822	6.6	88.9
M25: J29 to J28	4,582	3.6	76.9	3,669	4.8	45.9
M25: J28 to J27	12,293	9.3	79.6	12,293	10.5	70.0
M25: J27 to J26	6,788	5.2	77.6	6,788	5.6	72.4
Overall Total	70,777	69.0	61.5	70,812	59.2	71.8
Overall Difference				35	-9.8	10.2

**Plate C.13 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2045 Core AM Peak**



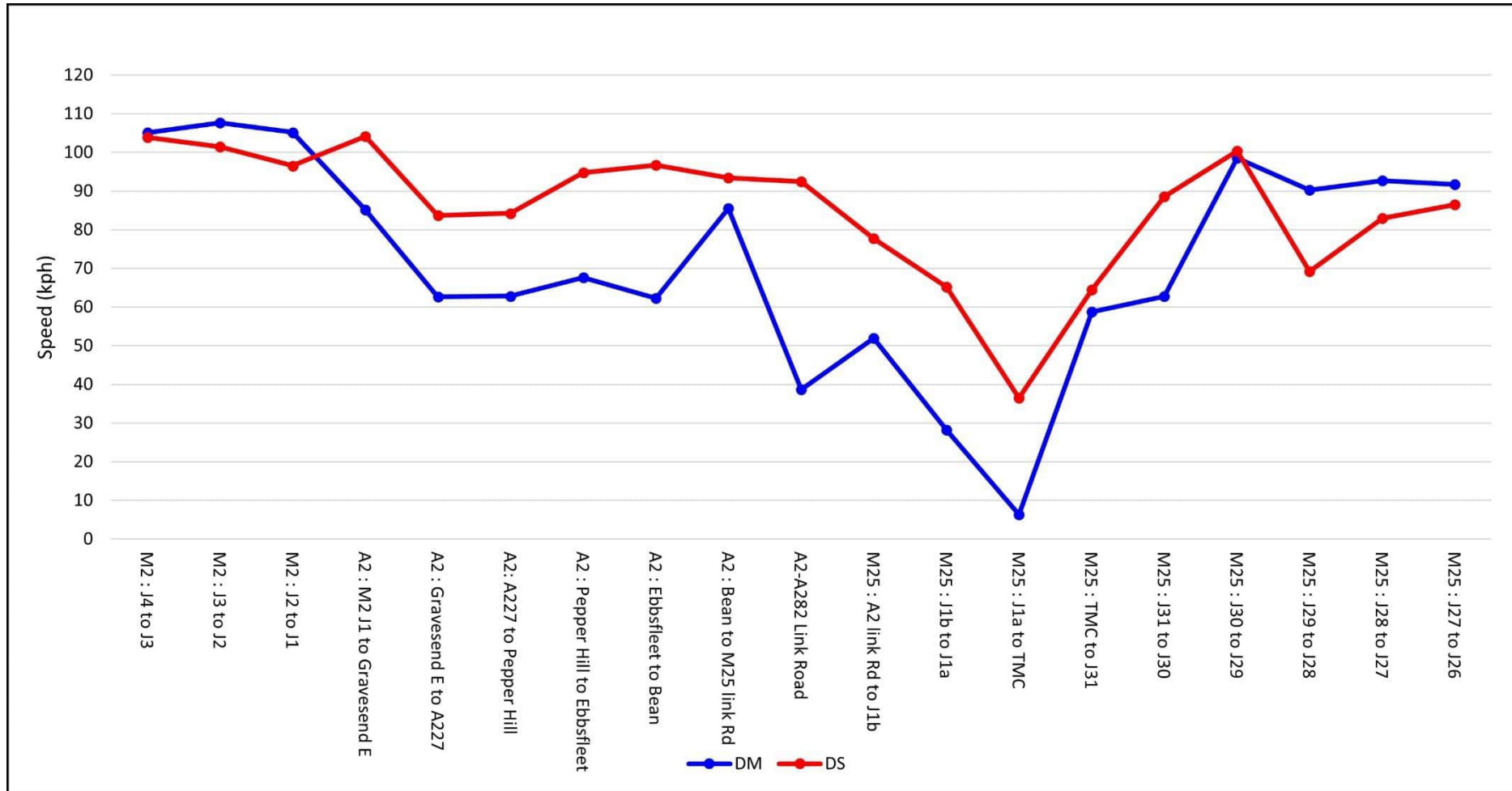


C.1.20 Table C.14 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2045 core forecast in the Inter Peak. Plate C.14 illustrates the speed differences.

**Table C.14 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26  
Northbound – 2045 Core Inter Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2: J4 to J3	6,084	3.5	105.1	6,084	3.5	103.9
M2: J3 to J2	6,189	3.4	107.7	6,189	3.7	101.5
M2: J2 to J1	2,896	1.7	105.2	2,343	1.5	96.5
A2: M2 J1 to Gravesend E	3,872	2.7	85.1	4,488	2.6	104.1
A2: Gravesend E to A227	1,829	1.8	62.6	1,752	1.3	83.7
A2: A227 to Pepper Hill	2,203	2.1	62.8	2,203	1.6	84.2
A2: Pepper Hill to Ebbsfleet	1,735	1.5	67.6	1,735	1.1	94.7
A2: Ebbsfleet to Bean	2,091	2.0	62.3	2,091	1.3	96.7
A2: Bean to M25 link Rd	1,951	1.4	85.6	1,951	1.3	93.4
A2-A282 Link Road	1,481	2.3	38.6	1,481	1.0	92.4
M25: A2 link Rd to J1b	1,048	1.2	51.9	1,048	0.8	77.7
M25: J1b to J1a	1,333	2.8	28.2	1,333	1.2	65.1
M25: J1a to TMC	587	5.5	6.4	587	1.0	36.5
M25: TMC to J31	3,875	4.0	58.8	3,875	3.6	64.5
M25: J31 to J30	1,082	1.0	62.8	1,082	0.7	88.6
M25: J30 to J29	8,860	5.4	98.5	9,822	5.9	100.4
M25: J29 to J28	4,582	3.0	90.3	3,669	3.2	69.2
M25: J28 to J27	12,293	8.0	92.7	12,293	8.9	83.0
M25: J27 to J26	6,788	4.4	91.7	6,788	4.7	86.5
Overall Total	70,777	57.8	73.5	70,812	48.6	87.3
Overall Difference				35	-9.2	13.9

**Plate C.14 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2045 Core Inter Peak**

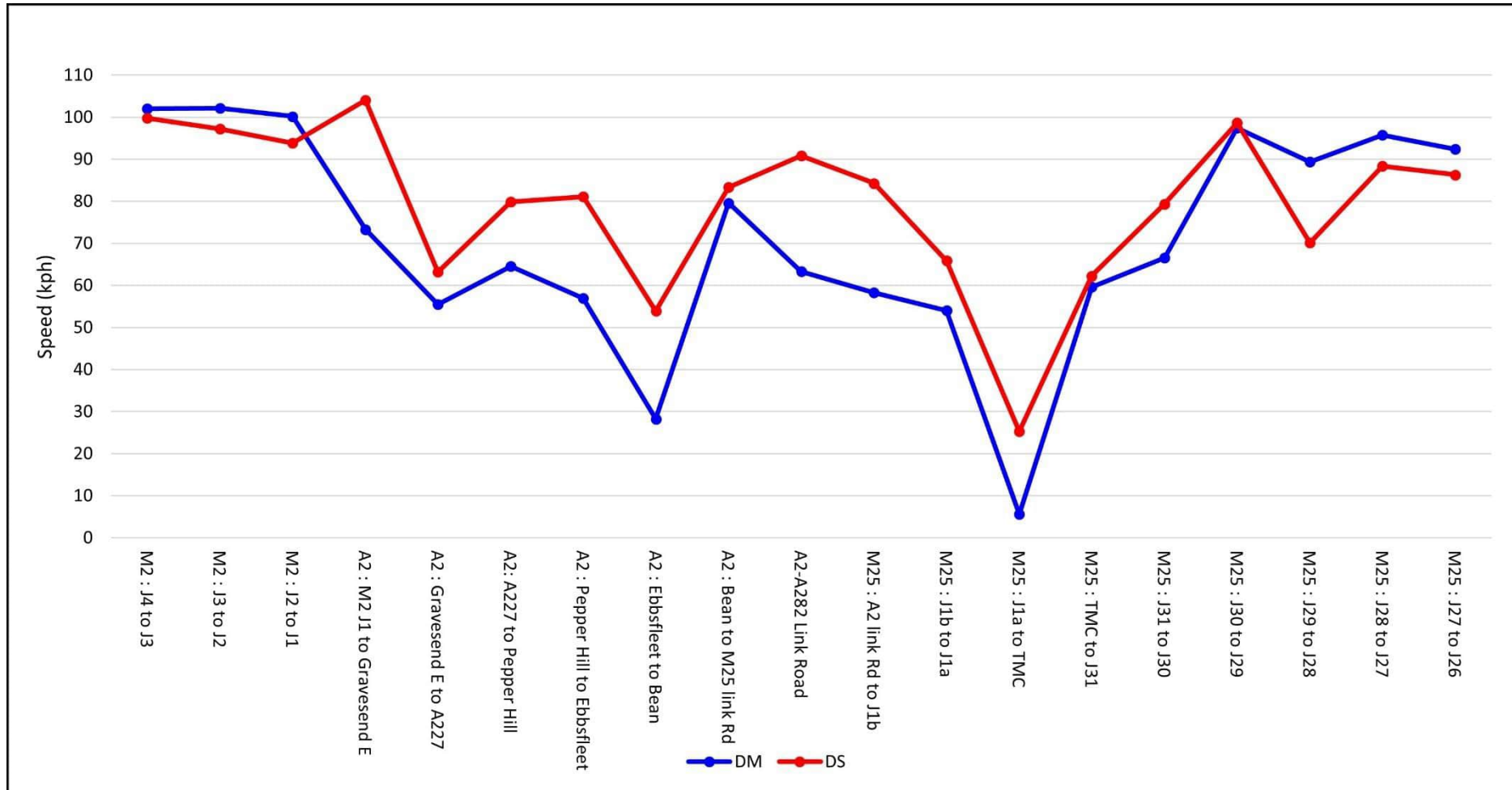


C.1.21 Table C.15 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2045 core forecast in the PM Peak. Plate C.15 illustrates the speed differences.

**Table C.15 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26  
Northbound – 2045 Core PM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2: J4 to J3	6,084	3.6	102.1	6,084	3.7	99.8
M2: J3 to J2	6,189	3.6	102.1	6,189	3.8	97.2
M2: J2 to J1	2,896	1.7	100.2	2,343	1.5	93.9
A2: M2 J1 to Gravesend E	3,872	3.2	73.3	4,488	2.6	104.1
A2: Gravesend E to A227	1,829	2.0	55.5	1,752	1.7	63.2
A2: A227 to Pepper Hill	2,203	2.0	64.5	2,203	1.7	79.9
A2: Pepper Hill to Ebbsfleet	1,735	1.8	56.9	1,735	1.3	81.1
A2: Ebbsfleet to Bean	2,091	4.4	28.3	2,091	2.3	53.9
A2: Bean to M25 link Rd	1,951	1.5	79.6	1,951	1.4	83.3
A2-A282 Link Road	1,481	1.4	63.4	1,481	1.0	90.8
M25: A2 link Rd to J1b	1,048	1.1	58.3	1,048	0.7	84.3
M25: J1b to J1a	1,333	1.5	54.0	1,333	1.2	65.9
M25: J1a to TMC	587	6.3	5.6	587	1.4	25.3
M25: TMC to J31	3,875	3.9	59.6	3,875	3.7	62.3
M25: J31 to J30	1,082	1.0	66.6	1,082	0.8	79.4
M25: J30 to J29	8,860	5.5	97.5	9,822	6.0	98.7
M25: J29 to J28	4,582	3.1	89.4	3,669	3.1	70.1
M25: J28 to J27	12,293	7.7	95.8	12,293	8.3	88.4
M25: J27 to J26	6,788	4.4	92.4	6,788	4.7	86.3
Overall Total	70,777	59.7	71.2	70,812	51.0	83.4
Overall Difference				35	-8.7	12.2

**Plate C.15 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2045 Core PM Peak**

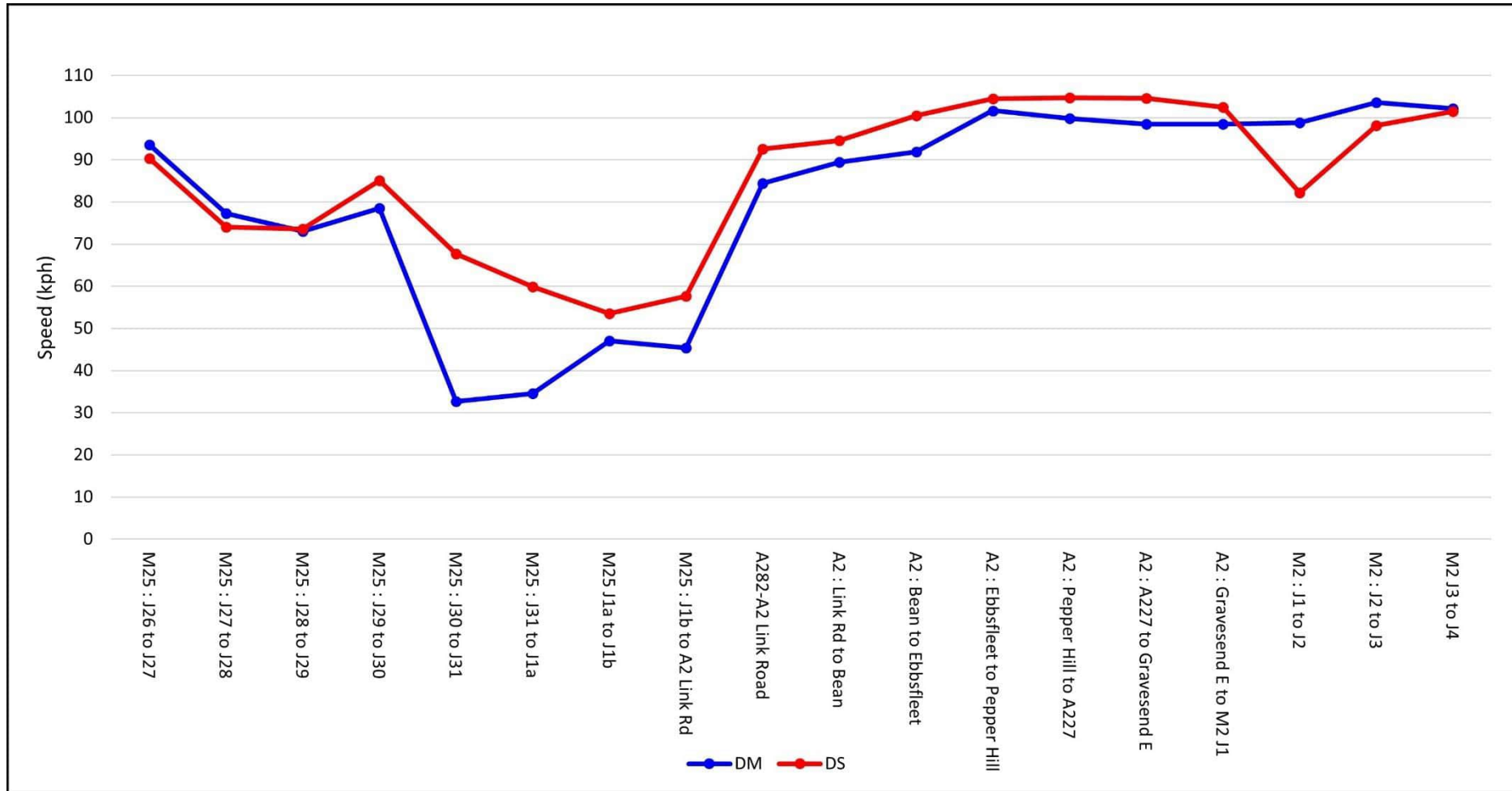


C.1.22 Table C.16 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2045 core forecast in the AM Peak. Plate C.16 illustrates the speed differences.

**Table C.16 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4  
 Southbound – 2045 Core AM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25: J26 to J27	7,492	4.8	93.6	7,492	5.0	90.3
M25: J27 to J28	12,486	9.7	77.3	12,486	10.1	74.0
M25: J28 to J29	4,513	3.7	73.0	4,658	3.8	73.6
M25: J29 to J30	8,625	6.6	78.5	7,960	5.6	85.1
M25: J30 to J31	1,180	2.2	32.6	1,492	1.3	67.6
M25: J31 to J1a	4,459	7.7	34.6	4,445	4.5	59.8
M25: J1a to J1b	1,382	1.8	47.1	1,030	1.2	53.6
M25: J1b to A2 Link Rd	1,226	1.6	45.4	1,577	1.6	57.6
A282-A2 Link Road	1,496	1.1	84.4	1,295	0.8	92.5
A2: Link Rd to Bean	1,473	1.0	89.4	1,231	0.8	94.5
A2: Bean to Ebbsfleet	3,038	2.0	91.8	3,252	1.9	100.5
A2: Ebbsfleet to Pepper Hill	1,076	0.6	101.6	1,198	0.7	104.5
A2: Pepper Hill to A227	1,877	1.1	99.8	1,216	0.7	104.7
A2: A227 to Gravesend E	2,095	1.3	98.5	1,782	1.0	104.6
A2: Gravesend E to M2 J1	4,234	2.6	98.4	5,469	3.2	102.4
M2: J1 to J2	2,481	1.5	98.8	1,493	1.1	82.1
M2: J2 to J3	6,405	3.7	103.6	7,358	4.5	98.1
M2: J3 to J4	5,937	3.5	102.2	5,681	3.4	101.5
Overall Total	71,472	56.5	76.0	71,111	51.2	83.3
Overall Difference				-362	-5.2	7.4

**Plate C.16 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2045 Core AM Peak**

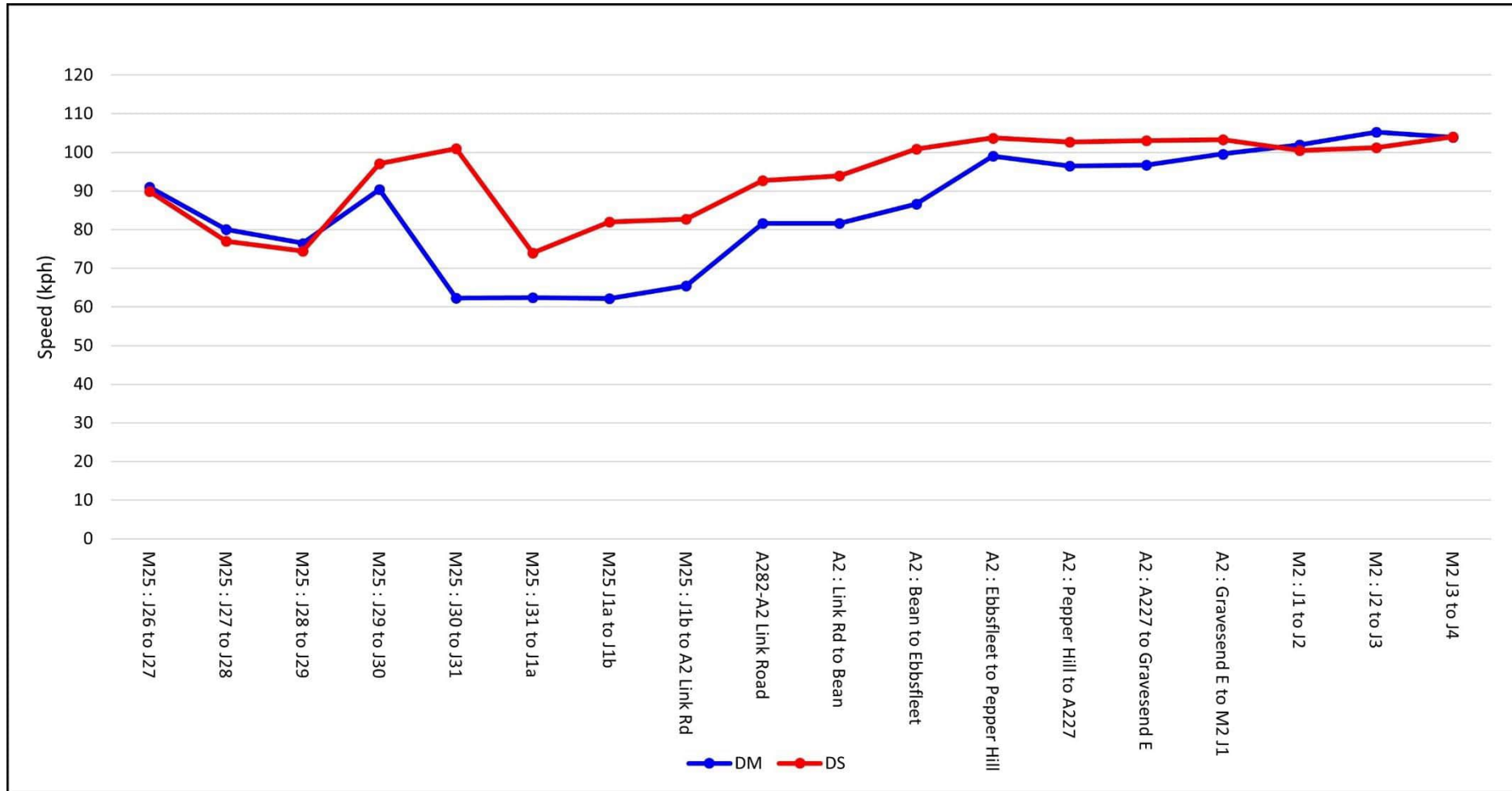


C.1.23 Table C.17 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2045 core forecast in the Inter Peak. Plate C.17 illustrates the speed differences.

**Table C.17 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4  
 Southbound – 2045 Core Inter Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25: J26 to J27	7,492	4.9	91.0	7,492	5.0	89.9
M25: J27 to J28	12,486	9.4	80.0	12,486	9.7	77.0
M25: J28 to J29	4,513	3.5	76.5	4,658	3.8	74.5
M25: J29 to J30	8,625	5.7	90.4	7,960	4.9	97.1
M25: J30 to J31	1,180	1.1	62.3	1,492	0.9	101.0
M25: J31 to J1a	4,459	4.3	62.5	4,445	3.6	74.0
M25: J1a to J1b	1,382	1.3	62.2	1,030	0.8	82.0
M25: J1b to A2 Link Rd	1,226	1.1	65.5	1,577	1.1	82.7
A282-A2 Link Road	1,496	1.1	81.6	1,295	0.8	92.7
A2: Link Rd to Bean	1,473	1.1	81.6	1,231	0.8	94.0
A2: Bean to Ebbsfleet	3,038	2.1	86.7	3,252	1.9	100.9
A2: Ebbsfleet to Pepper Hill	1,076	0.7	99.0	1,198	0.7	103.7
A2: Pepper Hill to A227	1,877	1.2	96.5	1,216	0.7	102.7
A2: A227 to Gravesend E	2,095	1.3	96.8	1,782	1.0	103.0
A2: Gravesend E to M2 J1	4,234	2.6	99.6	5,469	3.2	103.2
M2: J1 to J2	2,481	1.5	102.0	1,493	0.9	100.5
M2: J2 to J3	6,405	3.7	105.2	7,358	4.4	101.2
M2: J3 to J4	5,937	3.4	104.0	5,681	3.3	104.0
Overall Total	71,472	49.9	85.9	71,111	47.5	89.9
Overall Difference				-362	-2.5	4.0

**Plate C.17 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2045 Core Inter Peak**



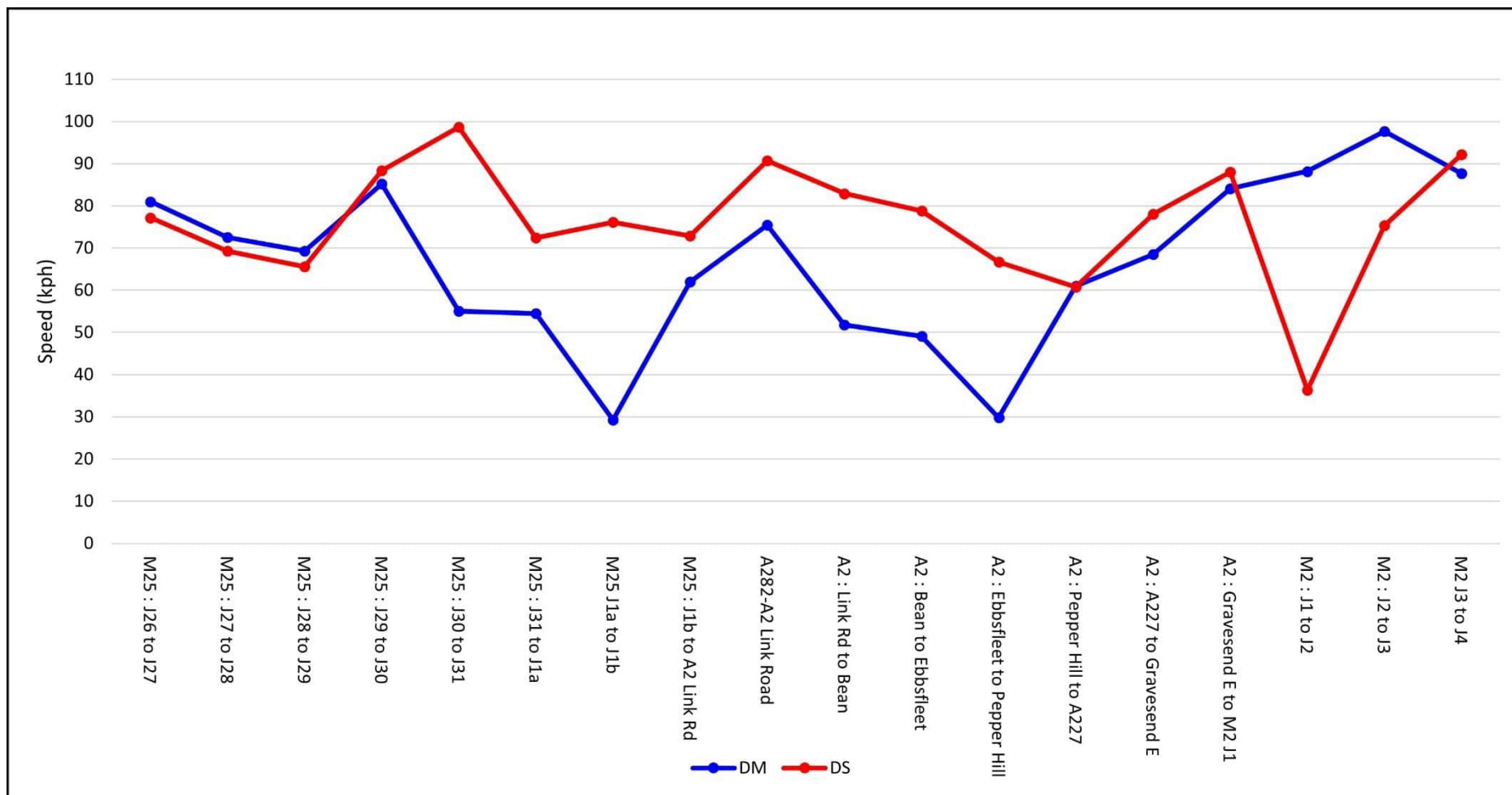


C.1.24 Table C.18 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2045 core forecast in the PM Peak. Plate C.18 illustrates the speed differences.

**Table C.18 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4  
 Southbound – 2045 Core PM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25: J26 to J27	7,492	5.5	81.0	7,492	5.8	77.2
M25: J27 to J28	12,486	10.3	72.6	12,486	10.8	69.3
M25: J28 to J29	4,513	3.9	69.3	4,658	4.3	65.6
M25: J29 to J30	8,625	6.1	85.2	7,960	5.4	88.4
M25: J30 to J31	1,180	1.3	55.0	1,492	0.9	98.7
M25: J31 to J1a	4,459	4.9	54.5	4,445	3.7	72.4
M25: J1a to J1b	1,382	2.8	29.2	1,030	0.8	76.1
M25: J1b to A2 Link Rd	1,226	1.2	62.0	1,577	1.3	72.8
A282-A2 Link Road	1,496	1.2	75.5	1,295	0.9	90.7
A2: Link Rd to Bean	1,473	1.7	51.8	1,231	0.9	82.9
A2: Bean to Ebbsfleet	3,038	3.7	49.2	3,252	2.5	78.9
A2: Ebbsfleet to Pepper Hill	1,076	2.2	29.8	1,198	1.1	66.7
A2: Pepper Hill to A227	1,877	1.8	61.0	1,216	1.2	60.7
A2: A227 to Gravesend E	2,095	1.8	68.5	1,782	1.4	78.1
A2: Gravesend E to M2 J1	4,234	3.0	84.1	5,469	3.7	88.0
M2: J1 to J2	2,481	1.7	88.2	1,493	2.5	36.4
M2: J2 to J3	6,405	3.9	97.7	7,358	5.9	75.3
M2: J3 to J4	5,937	4.1	87.7	5,681	3.7	92.2
Overall Total	71,472	61.2	70.0	71,111	56.6	75.4
Overall Difference				-362	-4.6	5.3

**Plate C.18 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2045 Core PM Peak**

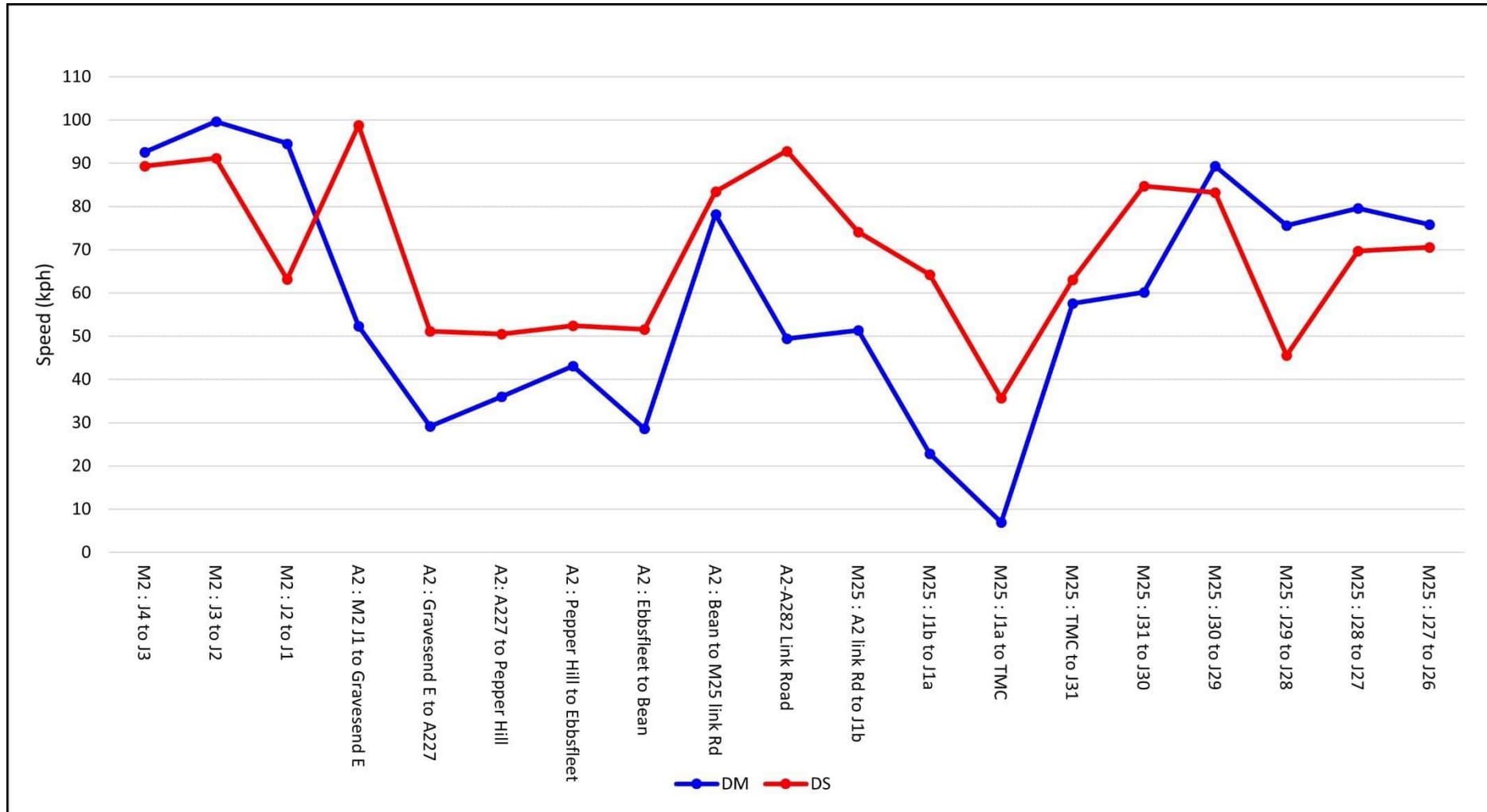


C.1.25 Table C.19 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2051 core forecast in the AM Peak. Plate C.19 illustrates the speed differences.

**Table C.19 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26  
Northbound – 2051 Core AM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2: J4 to J3	6,084	3.9	92.5	6,084	4.1	89.3
M2: J3 to J2	6,189	3.7	99.6	6,189	4.1	91.1
M2: J2 to J1	2,896	1.8	94.6	2,343	2.2	63.2
A2: M2 J1 to Gravesend E	3,872	4.4	52.3	4,488	2.7	98.8
A2: Gravesend E to A227	1,829	3.8	29.1	1,752	2.1	51.2
A2: A227 to Pepper Hill	2,203	3.7	36.1	2,203	2.6	50.5
A2: Pepper Hill to Ebbsfleet	1,735	2.4	43.1	1,735	2.0	52.4
A2: Ebbsfleet to Bean	2,091	4.4	28.6	2,091	2.4	51.6
A2: Bean to M25 link Rd	1,951	1.5	78.2	1,951	1.4	83.5
A2-A282 Link Road	1,481	1.8	49.4	1,481	1.0	92.8
M25: A2 link Rd to J1b	1,048	1.2	51.4	1,048	0.8	74.2
M25: J1b to J1a	1,333	3.5	22.9	1,333	1.2	64.2
M25: J1a to TMC	587	5.1	7.0	587	1.0	35.7
M25: TMC to J31	3,875	4.0	57.6	3,875	3.7	63.1
M25: J31 to J30	1,082	1.1	60.1	1,082	0.8	84.7
M25: J30 to J29	8,860	6.0	89.3	9,822	7.1	83.2
M25: J29 to J28	4,582	3.6	75.6	3,669	4.8	45.6
M25: J28 to J27	12,293	9.3	79.6	12,293	10.6	69.7
M25: J27 to J26	6,788	5.4	75.8	6,788	5.8	70.6
Overall Total	70,777	70.6	60.1	70,812	60.3	70.4
Overall Difference				35	-10.3	10.3

**Plate C.19 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2051 Core AM Peak**

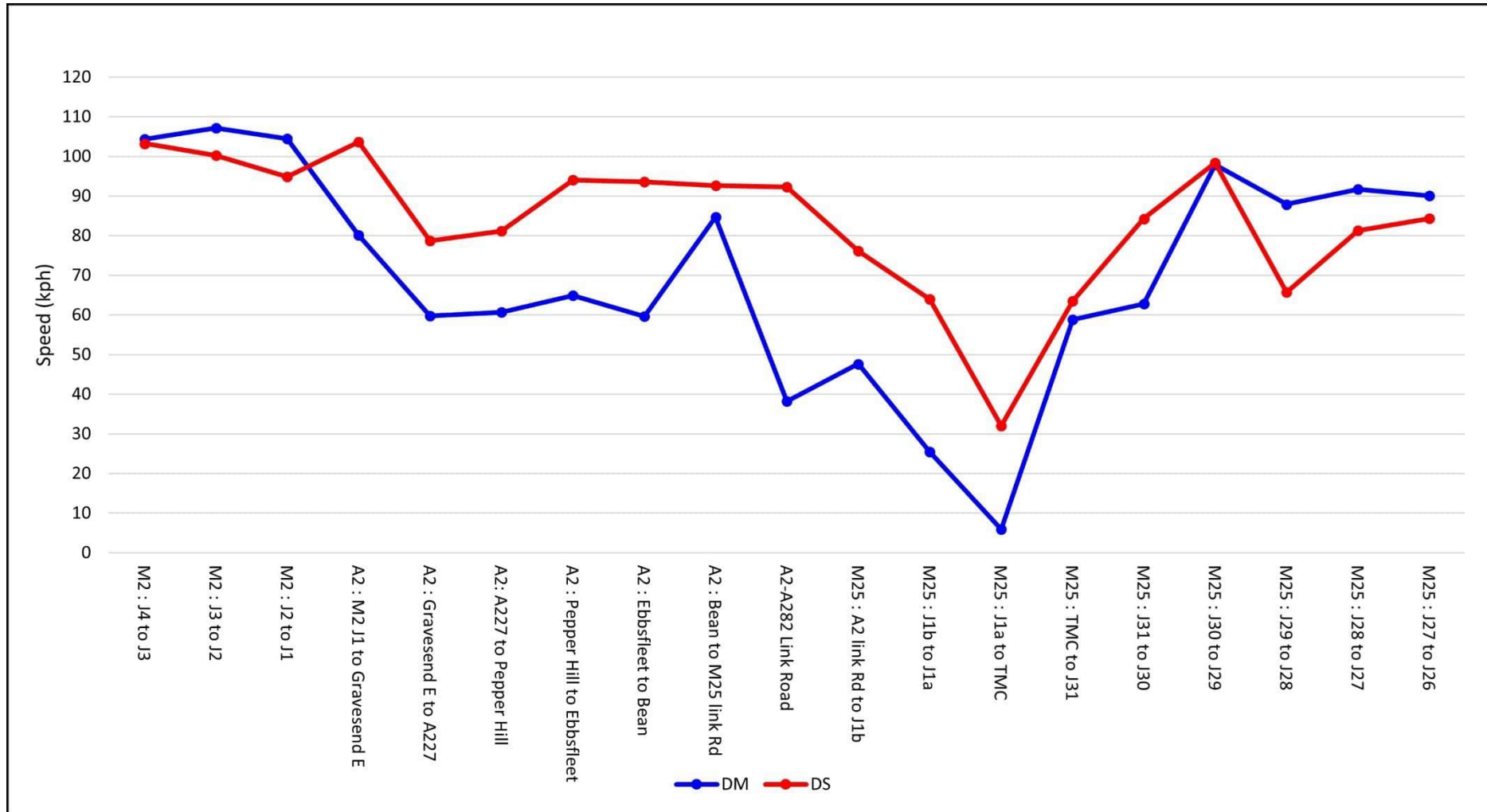


C.1.26 Table C.20 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2051 core forecast in the Inter Peak. Plate C.20 illustrates the speed differences.

**Table C.20 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26  
Northbound – 2051 Core Inter Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2: J4 to J3	6,084	3.5	104.4	6,084	3.5	103.2
M2: J3 to J2	6,189	3.5	107.1	6,189	3.7	100.2
M2: J2 to J1	2,896	1.7	104.5	2,343	1.5	94.8
A2: M2 J1 to Gravesend E	3,872	2.9	80.2	4,488	2.6	103.6
A2: Gravesend E to A227	1,829	1.8	59.7	1,752	1.3	78.7
A2: A227 to Pepper Hill	2,203	2.2	60.7	2,203	1.6	81.1
A2: Pepper Hill to Ebbsfleet	1,735	1.6	64.9	1,735	1.1	94.1
A2: Ebbsfleet to Bean	2,091	2.1	59.7	2,091	1.3	93.6
A2: Bean to M25 link Rd	1,951	1.4	84.6	1,951	1.3	92.7
A2-A282 Link Road	1,481	2.3	38.2	1,481	1.0	92.3
M25: A2 link Rd to J1b	1,048	1.3	47.6	1,048	0.8	76.1
M25: J1b to J1a	1,333	3.1	25.4	1,333	1.2	64.0
M25: J1a to TMC	587	5.9	5.9	587	1.1	32.0
M25: TMC to J31	3,875	4.0	58.8	3,875	3.7	63.4
M25: J31 to J30	1,082	1.0	62.8	1,082	0.8	84.3
M25: J30 to J29	8,860	5.4	97.9	9,822	6.0	98.4
M25: J29 to J28	4,582	3.1	87.9	3,669	3.3	65.8
M25: J28 to J27	12,293	8.0	91.7	12,293	9.1	81.3
M25: J27 to J26	6,788	4.5	90.1	6,788	4.8	84.4
Overall Total	70,777	59.5	71.4	70,812	49.8	85.3
Overall Difference	-	-	-	35	-9.6	13.9

**Plate C.20 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2051 Core Inter Peak**

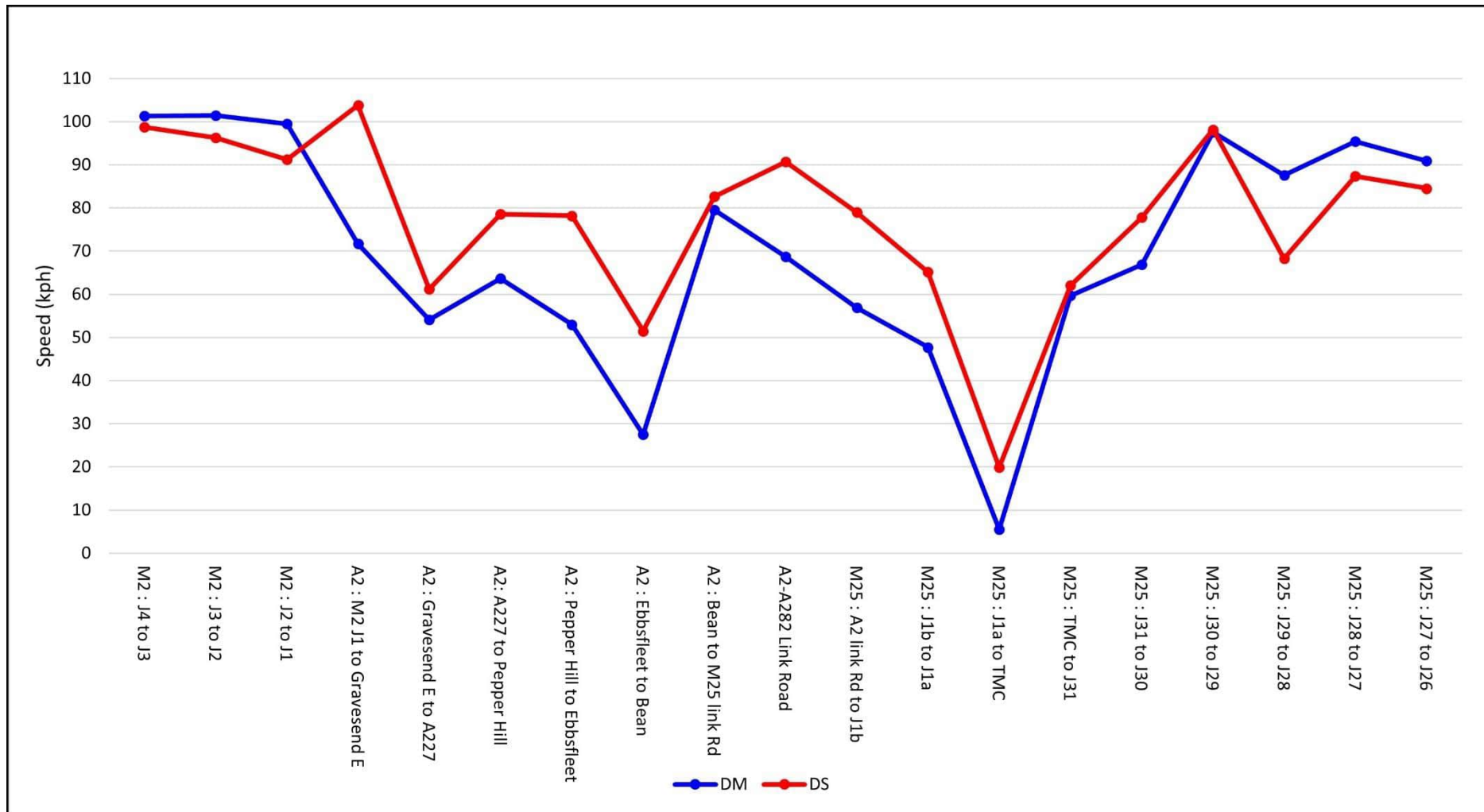


C.1.27 Table C.21 provides the distance, journey time and average speed associated with the different sections of the route in the northbound direction for the 2051 core forecast in the PM Peak. Plate C.21 illustrates the speed differences.

**Table C.21 Detailed Link Based Journey Time Comparison M2 J4 to M25 J26  
Northbound – 2051 Core PM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M2: J4 to J3	6,084	3.6	101.3	6,084	3.7	98.8
M2: J3 to J2	6,189	3.7	101.4	6,189	3.9	96.3
M2: J2 to J1	2,896	1.7	99.5	2,343	1.5	91.3
A2: M2 J1 to Gravesend E	3,872	3.2	71.7	4,488	2.6	103.8
A2: Gravesend E to A227	1,829	2.0	54.1	1,752	1.7	61.2
A2: A227 to Pepper Hill	2,203	2.1	63.6	2,203	1.7	78.5
A2: Pepper Hill to Ebbsfleet	1,735	2.0	53.0	1,735	1.3	78.2
A2: Ebbsfleet to Bean	2,091	4.6	27.5	2,091	2.4	51.5
A2: Bean to M25 link Rd	1,951	1.5	79.5	1,951	1.4	82.6
A2-A282 Link Road	1,481	1.3	68.7	1,481	1.0	90.7
M25: A2 link Rd to J1b	1,048	1.1	56.9	1,048	0.8	79.0
M25: J1b to J1a	1,333	1.7	47.7	1,333	1.2	65.2
M25: J1a to TMC	587	6.4	5.5	587	1.8	19.9
M25: TMC to J31	3,875	3.9	59.7	3,875	3.7	62.0
M25: J31 to J30	1,082	1.0	66.9	1,082	0.8	77.8
M25: J30 to J29	8,860	5.4	97.5	9,822	6.0	98.2
M25: J29 to J28	4,582	3.1	87.6	3,669	3.2	68.3
M25: J28 to J27	12,293	7.7	95.4	12,293	8.4	87.3
M25: J27 to J26	6,788	4.5	90.9	6,788	4.8	84.5
Overall Total	70,777	60.5	70.2	70,812	52.1	81.5
Overall Difference	-	-	-	35	-8.4	11.3

**Plate C.21 Detailed Link Based Speed Comparison M2 J4 to M25 J26 Northbound – 2051 Core PM Peak**



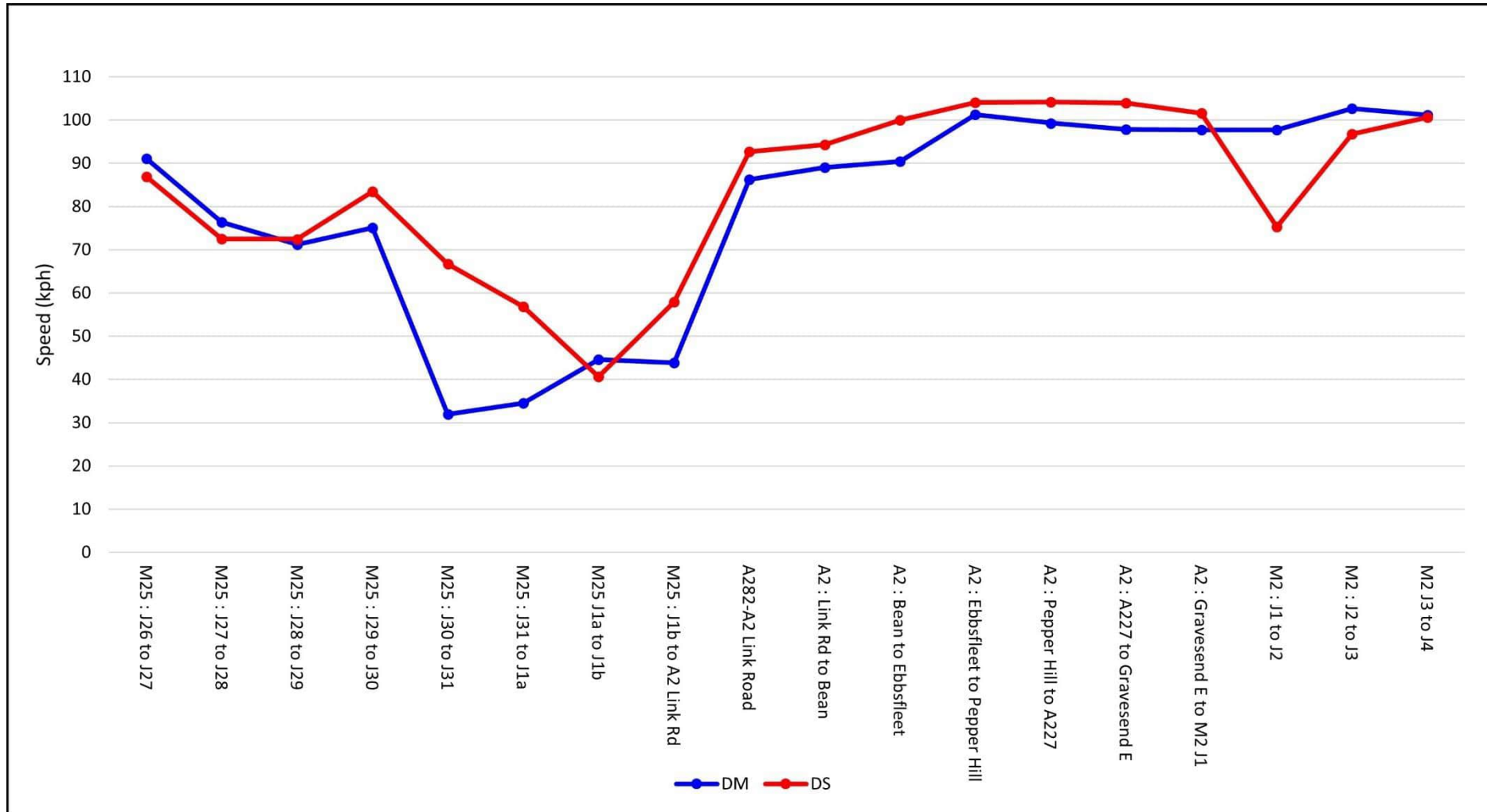


C.1.28 Table C.22 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2051 core forecast in the AM Peak. Plate C.22 illustrates the speed differences.

**Table C.22 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2051 Core AM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25: J26 to J27	7,492	4.9	91.1	7,492	5.2	86.9
M25: J27 to J28	12,486	9.8	76.4	12,486	10.3	72.5
M25: J28 to J29	4,513	3.8	71.2	4,658	3.9	72.5
M25: J29 to J30	8,625	6.9	75.1	7,960	5.7	83.4
M25: J30 to J31	1,180	2.2	32.0	1,492	1.3	66.8
M25: J31 to J1a	4,459	7.8	34.5	4,445	4.7	56.8
M25: J1a to J1b	1,382	1.9	44.6	1,030	1.5	40.7
M25: J1b to A2 Link Rd	1,226	1.7	43.9	1,577	1.6	57.9
A282-A2 Link Road	1,496	1.0	86.3	1,295	0.8	92.7
A2: Link Rd to Bean	1,473	1.0	89.0	1,231	0.8	94.3
A2: Bean to Ebbsfleet	3,038	2.0	90.5	3,252	2.0	99.9
A2: Ebbsfleet to Pepper Hill	1,076	0.6	101.2	1,198	0.7	104.1
A2: Pepper Hill to A227	1,877	1.1	99.3	1,216	0.7	104.2
A2: A227 to Gravesend E	2,095	1.3	97.8	1,782	1.0	104.0
A2: Gravesend E to M2 J1	4,234	2.6	97.7	5,469	3.2	101.6
M2: J1 to J2	2,481	1.5	97.7	1,493	1.2	75.3
M2: J2 to J3	6,405	3.7	102.7	7,358	4.6	96.8
M2: J3 to J4	5,937	3.5	101.1	5,681	3.4	100.6
Overall Total	71,472	57.4	74.7	71,111	52.6	81.1
Overall Difference	-			-362	-4.8	6.4

**Plate C.22 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2051 Core AM Peak**

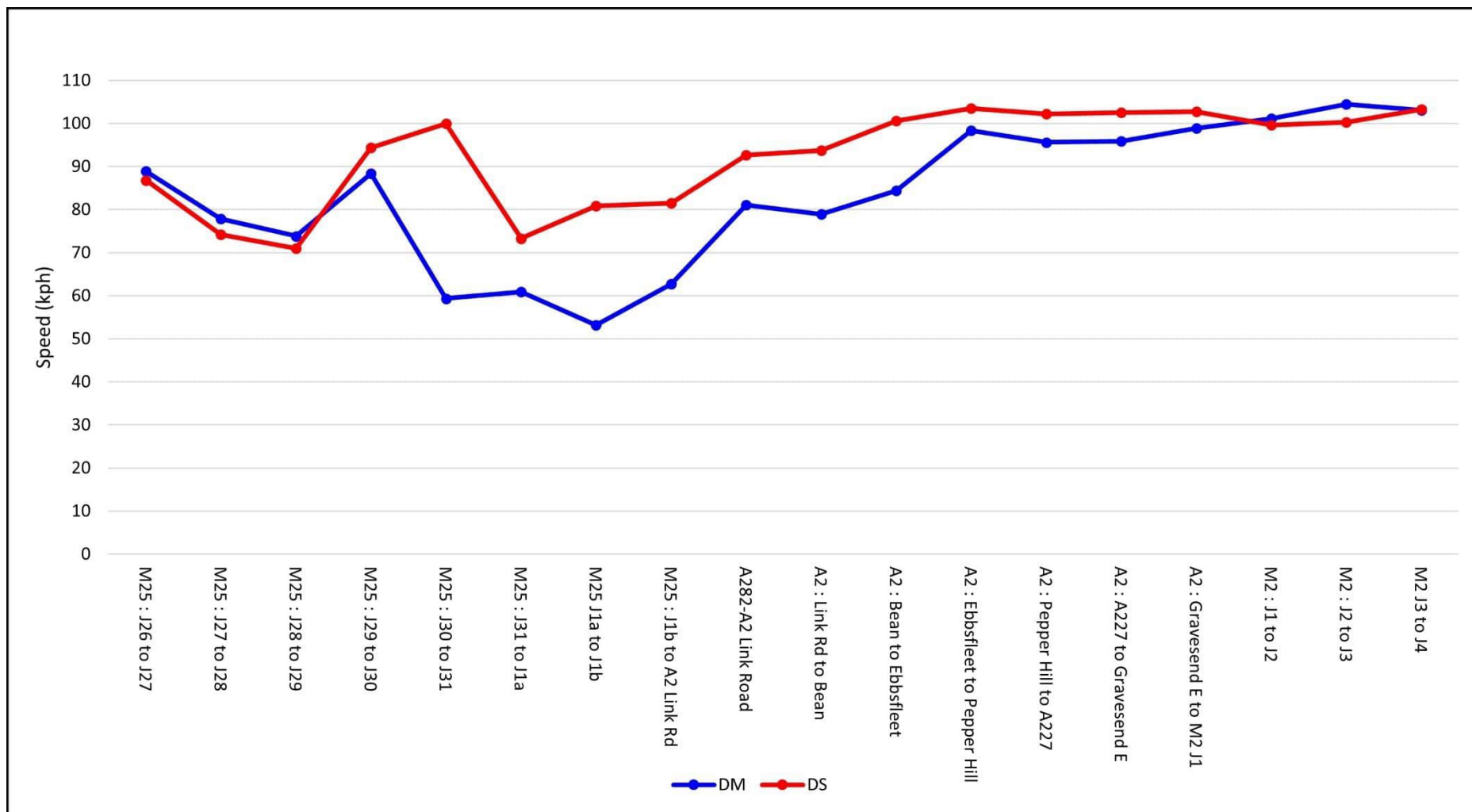


C.1.29 Table C.23 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2051 core forecast in the Inter Peak. Plate C.23 illustrates the speed differences.

**Table C.23 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2051 Core Inter Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25: J26 to J27	7,492	5.1	88.9	7,492	5.2	86.8
M25: J27 to J28	12,486	9.6	77.8	12,486	10.1	74.2
M25: J28 to J29	4,513	3.7	73.8	4,658	3.9	71.0
M25: J29 to J30	8,625	5.9	88.3	7,960	5.1	94.4
M25: J30 to J31	1,180	1.2	59.4	1,492	0.9	100.0
M25: J31 to J1a	4,459	4.4	60.9	4,445	3.6	73.3
M25: J1a to J1b	1,382	1.6	53.2	1,030	0.8	80.8
M25: J1b to A2 Link Rd	1,226	1.2	62.7	1,577	1.2	81.5
A282-A2 Link Road	1,496	1.1	81.1	1,295	0.8	92.6
A2: Link Rd to Bean	1,473	1.1	78.9	1,231	0.8	93.8
A2: Bean to Ebbsfleet	3,038	2.2	84.4	3,252	1.9	100.6
A2: Ebbsfleet to Pepper Hill	1,076	0.7	98.4	1,198	0.7	103.5
A2: Pepper Hill to A227	1,877	1.2	95.6	1,216	0.7	102.2
A2: A227 to Gravesend E	2,095	1.3	95.8	1,782	1.0	102.5
A2: Gravesend E to M2 J1	4,234	2.6	98.8	5,469	3.2	102.7
M2: J1 to J2	2,481	1.5	101.1	1,493	0.9	99.6
M2: J2 to J3	6,405	3.7	104.5	7,358	4.4	100.3
M2: J3 to J4	5,937	3.5	103.1	5,681	3.3	103.3
Overall Total	71,472	51.2	83.7	71,111	48.5	87.9
Overall Difference	-	-	-	-362	-2.7	4.2

**Plate C.23 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2051 Core Inter Peak**

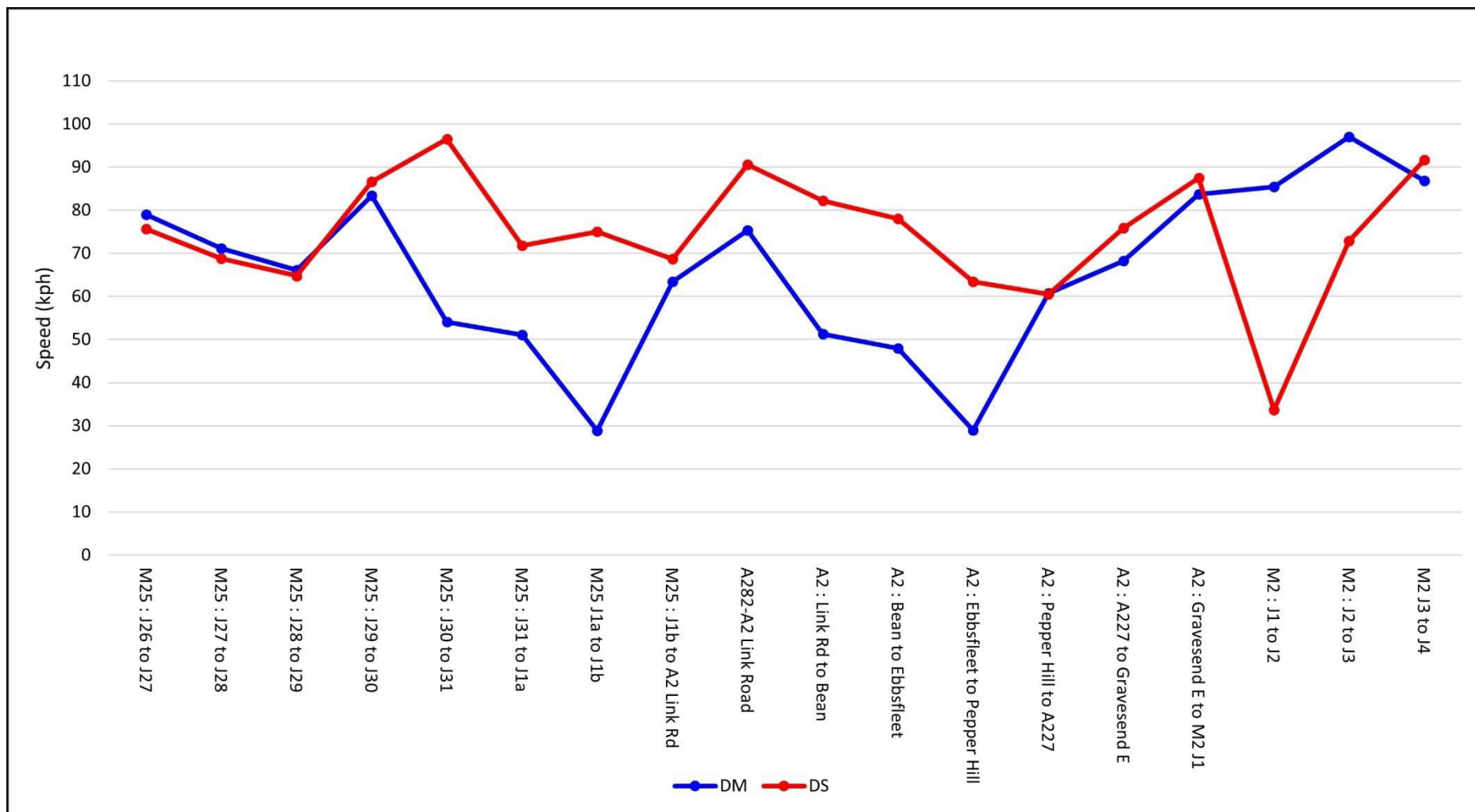


C.1.30 Table C.24 provides the distance, journey time and average speed associated with the different sections of the route in the southbound direction for the 2051 core forecast in the PM Peak. Plate C.24 illustrates the speed differences.

**Table C.24 Detailed Link Based Journey Time Comparison M25 J26 to M2 J4 Southbound – 2051 Core PM Peak**

Section	DM			DS		
	Dist (m)	Time (mins)	Speed (kph)	Dist (m)	Time (mins)	Speed (kph)
M25: J26 to J27	7,492	5.7	79.0	7,492	5.9	75.7
M25: J27 to J28	12,486	10.5	71.1	12,486	10.9	68.8
M25: J28 to J29	4,513	4.1	66.1	4,658	4.3	64.8
M25: J29 to J30	8,625	6.2	83.4	7,960	5.5	86.6
M25: J30 to J31	1,180	1.3	54.1	1,492	0.9	96.5
M25: J31 to J1a	4,459	5.2	51.1	4,445	3.7	71.8
M25: J1a to J1b	1,382	2.9	28.8	1,030	0.8	75.0
M25: J1b to A2 Link Rd	1,226	1.2	63.5	1,577	1.4	68.7
A282-A2 Link Road	1,496	1.2	75.3	1,295	0.9	90.6
A2: Link Rd to Bean	1,473	1.7	51.3	1,231	0.9	82.2
A2: Bean to Ebbsfleet	3,038	3.8	48.0	3,252	2.5	78.0
A2: Ebbsfleet to Pepper Hill	1,076	2.2	29.0	1,198	1.1	63.4
A2: Pepper Hill to A227	1,877	1.9	60.7	1,216	1.2	60.5
A2: A227 to Gravesend E	2,095	1.8	68.3	1,782	1.4	75.9
A2: Gravesend E to M2 J1	4,234	3.0	83.7	5,469	3.8	87.4
M2: J1 to J2	2,481	1.7	85.5	1,493	2.7	33.7
M2: J2 to J3	6,405	4.0	97.0	7,358	6.1	72.9
M2: J3 to J4	5,937	4.1	86.8	5,681	3.7	91.6
Overall Total	71,472	62.6	68.5	71,111	57.7	74.0
Overall Difference	-	-	-	-362	-4.9	5.4

**Plate C.24 Detailed Link Based Speed Comparison M25 J26 to M2 J4 Southbound – 2051 Core PM Peak**



## Annex D Sensitivity Tests – Outputs to Economic Assessment

### Introduction

- D.1.1 This appendix provides comparisons of the Do Minimum and Do Something forecasts for the low and high growth sensitivity tests for each of the forecast years. The statistics provided are similar to those presented for the core scenario under Chapter 7 and Chapter 8 of this report. The general message is the same as for the core scenario so no detailed commentary on these results is provided here. The statistics are provided for completeness.
- D.1.2 Table D.1 to Table D.4 provide the reference matrix totals for the low and high growth sensitivity tests for each of the model forecast years. The matrices are provided showing the DIADEM 17 demand segments and the SATURN 10 user classes. HGV Port and Non-Port have been combined for presentation purposes.
- D.1.3 Subsequent sections provide more detailed analysis for each sensitivity test and forecast year.

**Table D.1 LTAM Reference Matrix Totals in DIADEM Segmentation (Low Growth Scenario Highway Trips in PCUs)**

Segment	Matrix Type	Time Period	Actual Base (2016)	Low Growth (2030)			Low Growth (2037)			Low Growth (2045)			Low Growth (2051)		
			Matrix Total	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %
HBEB	24Hr PA	N/A	2,554,589	2,618,184	63,595	2.5%	2,688,946	134,357	5.3%	2,803,953	249,364	9.8%	2,890,516	335,927	13.1%
HBW L	24Hr PA	N/A	2,255,274	2,276,688	21,414	0.9%	2,324,558	69,285	3.1%	2,402,696	147,422	6.5%	2,460,406	205,132	9.1%
HBW M	24Hr PA	N/A	3,993,999	4,023,929	29,930	0.7%	4,105,211	111,211	2.8%	4,240,417	246,418	6.2%	4,340,320	346,321	8.7%
HBW H	24Hr PA	N/A	3,125,908	3,149,233	23,325	0.7%	3,211,574	85,666	2.7%	3,316,273	190,365	6.1%	3,393,838	267,930	8.6%
HBO L	24Hr PA	N/A	6,076,175	6,539,398	463,224	7.6%	6,824,076	747,901	12.3%	7,163,364	1,087,189	17.9%	7,418,394	1,342,220	22.1%
HBO M	24Hr PA	N/A	5,445,416	5,868,827	423,410	7.8%	6,128,081	682,665	12.5%	6,431,662	986,245	18.1%	6,659,888	1,214,472	22.3%
HBO H	24Hr PA	N/A	3,896,462	4,221,172	324,710	8.3%	4,417,126	520,664	13.4%	4,636,401	739,939	19.0%	4,801,401	904,939	23.2%
NHBEB	By Time Period OD	AM	87,644	88,741	1,097	1.3%	90,713	3,069	3.5%	93,897	6,254	7.1%	96,278	8,634	9.9%
		IP	113,550	114,916	1,366	1.2%	117,486	3,936	3.5%	121,618	8,068	7.1%	124,703	11,153	9.8%
		PM	126,583	128,112	1,529	1.2%	130,987	4,404	3.5%	135,597	9,014	7.1%	139,041	12,458	9.8%
		OP	31,974	32,366	391	1.2%	33,088	1,114	3.5%	34,250	2,276	7.1%	35,118	3,144	9.8%
NHBO L	By Time Period OD	AM	123,476	129,332	5,856	4.7%	133,735	10,259	8.3%	139,449	15,973	12.9%	143,723	20,247	16.4%
		IP	327,526	343,270	15,744	4.8%	354,972	27,445	8.4%	369,960	42,434	13.0%	381,168	53,641	16.4%
		PM	258,558	271,138	12,581	4.9%	280,420	21,862	8.5%	292,209	33,652	13.0%	301,024	42,466	16.4%
		OP	72,110	75,584	3,474	4.8%	78,140	6,030	8.4%	81,384	9,274	12.9%	83,809	11,699	16.2%



Segment	Matrix Type	Time Period	Actual Base (2016)	Low Growth (2030)			Low Growth (2037)			Low Growth (2045)			Low Growth (2051)		
			Matrix Total	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %
NHBO M	By Time Period OD	AM	131,250	137,581	6,331	4.8%	142,306	11,056	8.4%	148,374	17,123	13.0%	152,916	21,666	16.5%
		IP	261,640	274,500	12,860	4.9%	283,968	22,329	8.5%	295,938	34,298	13.1%	304,892	43,252	16.5%
		PM	259,775	272,573	12,799	4.9%	281,979	22,205	8.5%	293,830	34,055	13.1%	302,698	42,924	16.5%
		OP	64,438	67,595	3,157	4.9%	69,905	5,467	8.5%	72,803	8,365	13.0%	74,971	10,532	16.3%
NHBO H	By Time Period OD	AM	105,420	110,825	5,405	5.1%	114,741	9,321	8.8%	119,599	14,180	13.5%	123,237	17,817	16.9%
		IP	178,457	187,883	9,427	5.3%	194,609	16,152	9.1%	202,784	24,327	13.6%	208,904	30,447	17.1%
		PM	200,519	211,166	10,647	5.3%	218,726	18,206	9.1%	227,876	27,357	13.6%	234,727	34,208	17.1%
		OP	47,153	49,633	2,479	5.3%	51,389	4,235	9.0%	53,507	6,353	13.5%	55,092	7,938	16.8%
LGV	By Time Period OD	AM	730,141	810,162	80,021	11.0%	880,167	150,026	20.5%	953,410	223,269	30.6%	992,092	261,951	35.9%
		IP	630,596	699,722	69,126	11.0%	760,062	129,466	20.5%	823,326	192,730	30.6%	856,873	226,277	35.9%
		PM	527,223	584,806	57,583	10.9%	635,207	107,983	20.5%	688,065	160,841	30.5%	716,097	188,873	35.8%
		OP	254,232	282,087	27,855	11.0%	306,415	52,183	20.5%	331,922	77,690	30.6%	345,448	91,216	35.9%
HGV	By Time Period OD	AM	129,666	121,312	-8,354	-6.4%	122,878	-6,788	-5.2%	125,447	-4,219	-3.3%	127,481	-2,185	-1.7%
		IP	145,529	136,328	-9,201	-6.3%	138,054	-7,475	-5.1%	140,903	-4,627	-3.2%	143,162	-2,368	-1.6%
		PM	83,900	78,643	-5,257	-6.3%	79,650	-4,251	-5.1%	81,303	-2,597	-3.1%	82,612	-1,288	-1.5%
		OP	58,012	54,066	-3,945	-6.8%	54,743	-3,269	-5.6%	55,865	-2,146	-3.7%	56,758	-1,253	-2.2%
Port Trips EB	By Time Period OD	AM	4,704	4,485	-219	-4.6%	4,387	-316	-6.7%	4,293	-411	-8.7%	4,230	-473	-10.1%
		IP	3,340	3,114	-226	-6.8%	3,045	-295	-8.8%	2,978	-362	-10.9%	2,934	-407	-12.2%
		PM	4,153	3,907	-246	-5.9%	3,821	-332	-8.0%	3,737	-415	-10.0%	3,682	-470	-11.3%
		OP	1,329	1,202	-128	-9.6%	1,174	-155	-11.7%	1,147	-182	-13.7%	1,130	-200	-15.0%

Segment	Matrix Type	Time Period	Actual Base (2016)	Low Growth (2030)			Low Growth (2037)			Low Growth (2045)			Low Growth (2051)		
			Matrix Total	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %
Port Trips O LI	By Time Period OD	AM	2,833	2,594	-239	-8.5%	2,535	-298	-10.5%	2,478	-355	-12.5%	2,440	-393	-13.9%
		IP	3,475	3,191	-284	-8.2%	3,119	-357	-10.3%	3,049	-426	-12.3%	3,003	-472	-13.6%
		PM	3,472	3,170	-303	-8.7%	3,097	-375	-10.8%	3,028	-445	-12.8%	2,981	-491	-14.1%
		OP	1,145	1,034	-111	-9.7%	1,010	-135	-11.8%	987	-157	-13.8%	972	-173	-15.1%
Port Trips O MI	By Time Period OD	AM	3,307	3,023	-284	-8.6%	2,954	-353	-10.7%	2,888	-419	-12.7%	2,844	-463	-14.0%
		IP	3,670	3,370	-300	-8.2%	3,293	-377	-10.3%	3,219	-450	-12.3%	3,171	-499	-13.6%
		PM	4,074	3,716	-357	-8.8%	3,632	-442	-10.9%	3,550	-524	-12.9%	3,496	-578	-14.2%
		OP	1,269	1,146	-122	-9.6%	1,120	-149	-11.7%	1,095	-174	-13.7%	1,078	-191	-15.0%
Port Trips O HI	By Time Period OD	AM	4,700	4,288	-413	-8.8%	4,190	-511	-10.9%	4,095	-605	-12.9%	4,033	-667	-14.2%
		IP	3,908	3,585	-323	-8.3%	3,503	-405	-10.4%	3,425	-483	-12.4%	3,373	-535	-13.7%
		PM	5,207	4,746	-461	-8.9%	4,637	-570	-10.9%	4,533	-674	-12.9%	4,464	-743	-14.3%
		OP	1,516	1,372	-144	-9.5%	1,340	-176	-11.6%	1,310	-206	-13.6%	1,290	-227	-14.9%

**Table D.2 LTAM Reference Matrix Totals in SATURN Segmentation (Low Growth Scenario Hourly PCUs)**

Userclass	Time Period	Actual Base (2016)	Low Growth (2030)			Low Growth (2037)			Low Growth (2045)			Low Growth (2051)		
		Matrix Total	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %
Car Employers Business	AM	446,238	455,835	9,597	2.2%	467,274	21,035	4.7%	486,094	39,856	8.9%	500,305	54,067	12.1%
	IP	388,822	397,319	8,497	2.2%	407,437	18,615	4.8%	423,741	34,918	9.0%	435,975	47,153	12.1%
	PM	535,264	547,687	12,423	2.3%	561,810	26,546	5.0%	584,423	49,159	9.2%	601,413	66,148	12.4%
	OP	153,738	156,593	2,855	1.9%	160,589	6,851	4.5%	167,154	13,416	8.7%	172,089	18,351	11.9%
Car Commute Low Income	AM	416,936	421,314	4,377	1.0%	430,072	13,135	3.2%	444,394	27,457	6.6%	454,958	38,022	9.1%
	IP	189,525	191,917	2,392	1.3%	196,027	6,502	3.4%	202,630	13,104	6.9%	207,512	17,987	9.5%
	PM	476,873	482,082	5,208	1.1%	492,351	15,477	3.2%	508,883	32,010	6.7%	521,089	44,216	9.3%
	OP	76,399	76,767	368	0.5%	78,346	1,947	2.5%	80,989	4,590	6.0%	82,943	6,544	8.6%
Car Commute Medium Income	AM	844,009	849,740	5,731	0.7%	866,630	22,621	2.7%	894,908	50,899	6.0%	915,800	71,790	8.5%
	IP	291,124	294,604	3,480	1.2%	300,760	9,636	3.3%	310,723	19,600	6.7%	318,091	26,967	9.3%
	PM	915,198	923,751	8,554	0.9%	942,623	27,426	3.0%	973,631	58,434	6.4%	996,534	81,336	8.9%
	OP	117,377	117,782	405	0.3%	120,105	2,728	2.3%	124,074	6,696	5.7%	127,007	9,630	8.2%
Car Commute High Income	AM	717,359	722,251	4,892	0.7%	736,350	18,991	2.6%	760,274	42,915	6.0%	777,824	60,465	8.4%
	IP	207,506	210,035	2,528	1.2%	214,323	6,816	3.3%	221,321	13,815	6.7%	226,585	19,078	9.2%
	PM	740,837	747,851	7,014	0.9%	762,801	21,964	3.0%	787,579	46,742	6.3%	805,823	64,987	8.8%
	OP	83,604	83,896	292	0.3%	85,529	1,925	2.3%	88,321	4,717	5.6%	90,416	6,812	8.1%

Userclass	Time Period	Actual Base (2016)	Low Growth (2030)			Low Growth (2037)			Low Growth (2045)			Low Growth (2051)		
		Matrix Total	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %
Car Other Low Income	AM	650,296	696,230	45,934	7.1%	725,257	74,960	11.5%	760,030	109,733	16.9%	786,165	135,868	20.9%
	IP	1,156,147	1,235,014	78,867	6.8%	1,285,157	129,010	11.2%	1,346,010	189,864	16.4%	1,391,682	235,535	20.4%
	PM	1,127,337	1,208,385	81,047	7.2%	1,258,277	130,940	11.6%	1,318,162	190,825	16.9%	1,363,138	235,801	20.9%
	OP	361,439	385,985	24,546	6.8%	401,922	40,483	11.2%	421,231	59,792	16.5%	435,733	74,294	20.6%
Car Other Medium Income	AM	693,521	743,314	49,792	7.2%	774,619	81,098	11.7%	811,559	118,037	17.0%	839,324	145,802	21.0%
	IP	923,590	988,068	64,478	7.0%	1,028,752	105,162	11.4%	1,077,236	153,646	16.6%	1,113,636	190,046	20.6%
	PM	1,135,035	1,218,018	82,983	7.3%	1,268,858	133,823	11.8%	1,329,054	194,020	17.1%	1,374,276	239,241	21.1%
	OP	323,221	345,479	22,258	6.9%	359,924	36,703	11.4%	377,153	53,931	16.7%	390,097	66,876	20.7%
Car Other High Income	AM	554,821	596,701	41,880	7.5%	622,636	67,815	12.2%	652,085	97,264	17.5%	674,207	119,386	21.5%
	IP	620,234	666,347	46,112	7.4%	694,939	74,705	12.0%	727,626	107,392	17.3%	752,179	131,945	21.3%
	PM	860,322	927,382	67,060	7.8%	967,829	107,507	12.5%	1,013,574	153,251	17.8%	1,047,979	187,657	21.8%
	OP	232,764	249,851	17,087	7.3%	260,770	28,006	12.0%	273,227	40,462	17.4%	282,595	49,830	21.4%
Car Total	AM	4,323,181	4,485,384	162,203	3.8%	4,622,837	299,656	6.9%	4,809,344	486,162	11.2%	4,948,583	625,401	14.5%
	IP	3,776,948	3,983,303	206,355	5.5%	4,127,395	350,446	9.3%	4,309,287	532,339	14.1%	4,445,660	668,711	17.7%
	PM	5,790,866	6,055,155	264,290	4.6%	6,254,548	463,683	8.0%	6,515,306	724,440	12.5%	6,710,252	919,386	15.9%
	OP	1,348,542	1,416,353	67,810	5.0%	1,467,186	118,643	8.8%	1,532,147	183,605	13.6%	1,580,880	232,338	17.2%
LGV	AM	730,141	810,162	80,021	11.0%	880,167	150,026	20.5%	953,410	223,269	30.6%	992,092	261,951	35.9%
	IP	630,596	699,722	69,126	11.0%	760,062	129,466	20.5%	823,326	192,730	30.6%	856,873	226,277	35.9%
	PM	527,223	584,806	57,583	10.9%	635,207	107,983	20.5%	688,065	160,841	30.5%	716,097	188,873	35.8%
	OP	254,232	282,087	27,855	11.0%	306,415	52,183	20.5%	331,922	77,690	30.6%	345,448	91,216	35.9%

Userclass	Time Period	Actual Base (2016)	Low Growth (2030)			Low Growth (2037)			Low Growth (2045)			Low Growth (2051)		
		Matrix Total	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %
HGV	AM	129,666	121,312	-8,354	-6.4%	122,878	-6,788	-5.2%	125,447	-4,219	-3.3%	127,481	-2,185	-1.7%
	IP	145,529	136,328	-9,201	-6.3%	138,054	-7,475	-5.1%	140,903	-4,627	-3.2%	143,162	-2,368	-1.6%
	PM	83,900	78,643	-5,257	-6.3%	79,650	-4,251	-5.1%	81,303	-2,597	-3.1%	82,612	-1,288	-1.5%
	OP	58,012	54,066	-3,945	-6.8%	54,743	-3,269	-5.6%	55,865	-2,146	-3.7%	56,758	-1,253	-2.2%

**Table D.3 LTAM Reference Matrix Totals in DIADEM Segmentation (High Growth Scenario Highway Trips in PCUs)**

Segment	Matrix Type	Time Period	Actual Base (2016)	High Growth (2030)			High Growth (2037)			High Growth (2045)			High Growth (2051)		
			Matrix Total	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %
HBE B	24Hr PA	N/A	2,554,589	3,096,108	541,519	21.2%	3,274,280	719,691	28.2%	3,491,802	937,214	36.7%	3,646,180	1,091,591	42.7%
HBW L	24Hr PA	N/A	2,255,274	2,698,614	443,341	19.7%	2,841,311	586,037	26.0%	3,009,952	754,678	33.5%	3,127,530	872,257	38.7%
HBW M	24Hr PA	N/A	3,993,999	4,771,152	777,152	19.5%	5,020,367	1,026,368	25.7%	5,315,853	1,321,854	33.1%	5,521,782	1,527,783	38.3%
HBW H	24Hr PA	N/A	3,125,908	3,734,051	608,143	19.5%	3,927,826	801,918	25.7%	4,157,969	1,032,061	33.0%	4,318,516	1,192,607	38.2%
HBO L	24Hr PA	N/A	6,076,175	7,676,159	1,599,984	26.3%	8,216,318	2,140,143	35.2%	8,799,443	2,723,268	44.8%	9,215,771	3,139,596	51.7%
HBO M	24Hr PA	N/A	5,445,416	6,887,583	1,442,167	26.5%	7,375,798	1,930,382	35.4%	7,897,903	2,452,487	45.0%	8,270,684	2,825,268	51.9%
HBO H	24Hr PA	N/A	3,896,462	4,950,144	1,053,682	27.0%	5,309,931	1,413,469	36.3%	5,685,572	1,789,109	45.9%	5,954,007	2,057,545	52.8%

Segment	Matrix Type	Time Period	Actual Base (2016)	High Growth (2030)				High Growth (2037)			High Growth (2045)			High Growth (2051)		
			Matrix Total	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	
NHBEB	By Time Period OD	AM	87,644	105,141	17,497	20.0%	110,798	23,154	26.4%	117,501	29,857	34.1%	122,208	34,564	39.4%	
		IP	113,550	136,158	22,608	19.9%	143,502	29,952	26.4%	152,191	38,641	34.0%	158,289	44,740	39.4%	
		PM	126,583	151,793	25,211	19.9%	159,991	33,408	26.4%	169,681	43,099	34.0%	176,485	49,902	39.4%	
		OP	31,974	38,348	6,373	19.9%	40,415	8,440	26.4%	42,860	10,886	34.0%	44,577	12,603	39.4%	
NHBO L	By Time Period OD	AM	123,476	152,433	28,957	23.5%	162,028	38,552	31.2%	172,697	49,221	39.9%	180,249	56,773	46.0%	
		IP	327,526	404,540	77,014	23.5%	430,012	102,486	31.3%	458,143	130,617	39.9%	478,044	150,518	46.0%	
		PM	258,558	319,508	60,951	23.6%	339,661	81,103	31.4%	361,826	103,268	39.9%	377,504	118,946	46.0%	
		OP	72,110	89,078	16,968	23.5%	94,666	22,557	31.3%	100,805	28,695	39.8%	105,145	33,035	45.8%	
NHBO M	By Time Period OD	AM	131,250	162,137	30,886	23.5%	172,380	41,130	31.3%	183,715	52,465	40.0%	191,741	60,491	46.1%	
		IP	261,640	323,446	61,806	23.6%	343,915	82,275	31.4%	366,383	104,743	40.0%	382,282	120,642	46.1%	
		PM	259,775	321,171	61,397	23.6%	341,499	81,725	31.5%	363,775	104,000	40.0%	379,538	119,764	46.1%	
		OP	64,438	79,653	15,214	23.6%	84,672	20,234	31.4%	90,157	25,718	39.9%	94,035	29,597	45.9%	
NHBO H	By Time Period OD	AM	105,420	130,548	25,128	23.8%	138,897	33,477	31.8%	147,986	42,566	40.4%	154,422	49,002	46.5%	
		IP	178,457	221,268	42,811	24.0%	235,497	57,040	32.0%	250,833	72,376	40.6%	261,690	83,233	46.6%	
		PM	200,519	248,680	48,161	24.0%	264,670	64,151	32.0%	281,868	81,348	40.6%	294,042	93,522	46.6%	
		OP	47,153	58,456	11,302	24.0%	62,194	15,041	31.9%	66,205	19,052	40.4%	69,042	21,889	46.4%	
LGV	By Time Period OD	AM	730,141	946,757	216,616	29.7%	1,047,461	317,320	43.5%	1,150,004	419,863	57.5%	1,208,068	477,927	65.5%	
		IP	630,596	817,694	187,098	29.7%	904,548	273,952	43.4%	993,117	362,520	57.5%	1,043,403	412,807	65.5%	
		PM	527,223	683,439	156,216	29.6%	756,007	228,784	43.4%	830,022	302,799	57.4%	872,050	344,826	65.4%	
		OP	254,232	329,649	75,417	29.7%	364,666	110,434	43.4%	400,375	146,143	57.5%	420,650	166,418	65.5%	

Segment	Matrix Type	Time Period	Actual Base (2016)	High Growth (2030)				High Growth (2037)			High Growth (2045)			High Growth (2051)		
			Matrix Total	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	
HGV	By Time Period OD	AM	129,666	145,570	15,904	12.3%	152,589	22,922	17.7%	160,361	30,695	23.7%	165,837	36,170	27.9%	
		IP	145,529	163,554	18,025	12.4%	171,399	25,870	17.8%	180,087	34,558	23.7%	186,210	40,681	28.0%	
		PM	83,900	94,339	10,439	12.4%	98,873	14,973	17.8%	103,894	19,994	23.8%	107,430	23,530	28.0%	
		OP	58,012	64,903	6,891	11.9%	68,015	10,003	17.2%	71,462	13,450	23.2%	73,892	15,881	27.4%	
Port Trips EB	By Time Period OD	AM	4,704	5,365	661	14.1%	5,465	761	16.2%	5,559	856	18.2%	5,622	918	19.5%	
		IP	3,340	3,739	399	11.9%	3,810	470	14.1%	3,877	537	16.1%	3,922	581	17.4%	
		PM	4,153	4,684	531	12.8%	4,772	619	14.9%	4,855	703	16.9%	4,911	758	18.2%	
		OP	1,329	1,450	121	9.1%	1,478	149	11.2%	1,505	175	13.2%	1,523	193	14.5%	
Port Trips O LI	By Time Period OD	AM	2,833	3,123	290	10.3%	3,183	351	12.4%	3,240	407	14.4%	3,278	445	15.7%	
		IP	3,475	3,841	366	10.5%	3,915	440	12.6%	3,984	509	14.7%	4,031	555	16.0%	
		PM	3,472	3,819	347	10.0%	3,892	420	12.1%	3,962	490	14.1%	4,008	536	15.4%	
		OP	1,145	1,248	103	9.0%	1,272	127	11.1%	1,295	150	13.1%	1,310	165	14.5%	
Port Trips O MI	By Time Period OD	AM	3,307	3,642	335	10.1%	3,712	405	12.2%	3,778	471	14.2%	3,822	515	15.6%	
		IP	3,670	4,056	386	10.5%	4,134	464	12.6%	4,207	538	14.7%	4,256	586	16.0%	
		PM	4,074	4,478	405	9.9%	4,565	491	12.1%	4,646	573	14.1%	4,700	627	15.4%	
		OP	1,269	1,383	115	9.1%	1,410	142	11.2%	1,436	167	13.2%	1,452	184	14.5%	
Port Trips O HI	By Time Period OD	AM	4,700	5,167	467	9.9%	5,266	566	12.0%	5,361	660	14.1%	5,423	723	15.4%	
		IP	3,908	4,316	408	10.4%	4,398	491	12.6%	4,477	569	14.6%	4,529	621	15.9%	
		PM	5,207	5,720	513	9.9%	5,830	623	12.0%	5,935	728	14.0%	6,004	797	15.3%	
		OP	1,516	1,655	139	9.2%	1,687	171	11.3%	1,717	201	13.3%	1,738	222	14.6%	

**Table D.4 LTAM Reference Matrix Totals in SATURN Segmentation (High Growth Scenario Hourly PCUs)**

Userclass	Time Period	Actual Base (2016)	High Growth (2030)			High Growth (2037)			High Growth (2045)			High Growth (2051)		
		Matrix Total	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %
Car Employers Business	AM	446,238	539,327	93,088	20.9%	569,529	123,291	27.6%	606,259	160,021	35.9%	632,317	186,078	41.7%
	IP	388,822	470,058	81,236	20.9%	496,524	107,702	27.7%	528,430	139,608	35.9%	550,987	162,164	41.7%
	PM	535,264	647,829	112,565	21.0%	684,458	149,194	27.9%	728,551	193,287	36.1%	759,750	224,486	41.9%
	OP	153,738	185,354	31,616	20.6%	195,814	42,076	27.4%	208,548	54,810	35.7%	217,564	63,826	41.5%
Car Commute Low Income	AM	416,936	499,315	82,379	19.8%	525,604	108,667	26.1%	556,657	139,721	33.5%	578,290	161,353	38.7%
	IP	189,525	227,376	37,850	20.0%	239,455	49,929	26.3%	253,663	64,138	33.8%	263,577	74,051	39.1%
	PM	476,873	571,298	94,425	19.8%	601,618	124,745	26.2%	637,287	160,414	33.6%	662,153	185,279	38.9%
	OP	76,399	91,059	14,661	19.2%	95,850	19,451	25.5%	101,559	25,161	32.9%	105,541	29,142	38.1%
Car Commute Medium Income	AM	844,009	1,007,643	163,634	19.4%	1,060,021	216,012	25.6%	1,122,170	278,161	33.0%	1,165,467	321,457	38.1%
	IP	291,124	349,071	57,948	19.9%	367,469	76,345	26.2%	389,115	97,992	33.7%	404,212	113,088	38.8%
	PM	915,198	1,094,970	179,773	19.6%	1,152,323	237,126	25.9%	1,220,057	304,860	33.3%	1,267,255	352,057	38.5%
	OP	117,377	139,741	22,363	19.1%	146,999	29,622	25.2%	155,678	38,300	32.6%	161,727	44,349	37.8%
Car Commute High Income	AM	717,359	856,453	139,095	19.4%	900,713	183,355	25.6%	953,424	236,066	32.9%	990,017	272,658	38.0%
	IP	207,506	248,858	41,352	19.9%	261,872	54,365	26.2%	277,198	69,692	33.6%	287,970	80,464	38.8%
	PM	740,837	886,458	145,621	19.7%	932,559	191,722	25.9%	987,068	246,232	33.2%	1,024,980	284,143	38.4%
	OP	83,604	99,536	15,932	19.1%	104,684	21,081	25.2%	110,831	27,227	32.6%	115,146	31,542	37.7%
Car Other Low Income	AM	650,296	817,895	167,599	25.8%	874,265	223,969	34.4%	935,135	284,839	43.8%	978,533	328,237	50.5%
	IP	1,156,147	1,451,301	295,154	25.5%	1,550,053	393,907	34.1%	1,657,301	501,154	43.3%	1,733,662	577,515	50.0%
	PM	1,127,337	1,419,291	291,954	25.9%	1,516,583	389,246	34.5%	1,621,708	494,371	43.9%	1,696,611	569,273	50.5%
	OP	361,439	453,607	92,168	25.5%	484,742	123,303	34.1%	518,555	157,117	43.5%	542,653	181,214	50.1%



Userclass	Time Period	Actual Base (2016)	High Growth (2030)			High Growth (2037)			High Growth (2045)			High Growth (2051)		
		Matrix Total	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %	Matrix Total	Diff to Actual Base	Diff %
Car Other Medium Income	AM	693,521	873,063	179,542	25.9%	933,529	240,008	34.6%	998,300	304,778	43.9%	1,044,475	350,954	50.6%
	IP	923,590	1,160,854	237,264	25.7%	1,240,371	316,781	34.3%	1,325,917	402,327	43.6%	1,386,834	463,244	50.2%
	PM	1,135,035	1,430,361	295,327	26.0%	1,528,925	393,890	34.7%	1,634,669	499,634	44.0%	1,710,020	574,986	50.7%
	OP	323,221	405,950	82,729	25.6%	433,986	110,765	34.3%	464,185	140,964	43.6%	485,710	162,489	50.3%
Car Other High Income	AM	554,821	700,500	145,679	26.3%	749,764	194,943	35.1%	801,479	246,658	44.5%	838,329	283,508	51.1%
	IP	620,234	782,379	162,144	26.1%	837,049	216,814	35.0%	894,625	274,390	44.2%	935,642	315,408	50.9%
	PM	860,322	1,088,339	228,016	26.5%	1,164,960	304,638	35.4%	1,245,230	384,908	44.7%	1,302,474	442,152	51.4%
	OP	232,764	293,398	60,634	26.0%	314,105	81,340	34.9%	335,902	103,138	44.3%	351,449	118,684	51.0%
Car Total	AM	4,323,181	5,294,196	971,015	22.5%	5,613,426	1,290,244	29.8%	5,973,423	1,650,242	38.2%	6,227,427	1,904,246	44.0%
	IP	3,776,948	4,689,897	912,948	24.2%	4,992,792	1,215,843	32.2%	5,326,249	1,549,301	41.0%	5,562,882	1,785,934	47.3%
	PM	5,790,866	7,138,546	1,347,680	23.3%	7,581,425	1,790,559	30.9%	8,074,571	2,283,705	39.4%	8,423,242	2,632,377	45.5%
	OP	1,348,542	1,668,646	320,103	23.7%	1,776,180	427,638	31.7%	1,895,259	546,716	40.5%	1,979,790	631,248	46.8%
LGV	AM	730,141	946,757	216,616	29.7%	1,047,461	317,320	43.5%	1,150,004	419,863	57.5%	1,208,068	477,927	65.5%
	IP	630,596	817,694	187,098	29.7%	904,548	273,952	43.4%	993,117	362,520	57.5%	1,043,404	412,807	65.5%
	PM	527,223	683,439	156,216	29.6%	756,007	228,784	43.4%	830,022	302,799	57.4%	872,050	344,826	65.4%
	OP	254,232	329,649	75,417	29.7%	364,666	110,434	43.4%	400,375	146,143	57.5%	420,650	166,418	65.5%
HGV	AM	129,666	145,570	15,904	12.3%	152,589	22,922	17.7%	160,361	30,695	23.7%	165,837	36,170	27.9%
	IP	145,529	163,554	18,025	12.4%	171,399	25,870	17.8%	180,087	34,558	23.7%	186,210	40,681	28.0%
	PM	83,900	94,339	10,439	12.4%	98,873	14,973	17.8%	103,894	19,994	23.8%	107,430	23,530	28.0%
	OP	58,012	64,903	6,891	11.9%	68,015	10,003	17.2%	71,462	13,450	23.2%	73,892	15,881	27.4%

## **D.2 LTAM 2030 Low Growth – Outputs to Economic Assessment**

D.2.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2030 low growth forecast.

### **Matrix Total Comparison**

D.2.2 Table D.5 and Table D.6 show that the VDMs have converged to the desired criteria.

D.2.3 Table D.7 and Table D.8 provide a comparison of the input reference matrices with the VDM output matrices. The SATURN format comparisons are provided for all movements and relevant movements.

**Table D.5 Convergence and Stability Statistics (Low 2030 DM)**

Iteration	%GAP		Cost stability				Flow stability				Totals
	Full Model	Subset Area	RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%	Trips*
1	7.25%	12.56%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%	72,819,662
2	3.50%	5.68%	0.004	0.203	0.394	99.84%	0.081	0.016	1.981	44.22%	73,022,284
3	1.72%	2.71%	0.001	0.060	0.112	100.00%	0.035	0.008	0.989	77.83%	73,123,109
4	0.86%	1.33%	0.001	0.026	0.059	100.00%	0.017	0.004	0.494	95.74%	73,173,344
5	0.43%	0.68%	0.000	0.017	0.056	100.00%	0.008	0.002	0.247	99.01%	73,198,411
6	0.21%	0.34%	0.000	0.010	0.039	100.00%	0.004	0.001	0.123	99.72%	73,210,917
7	0.11%	0.19%	0.000	0.009	0.027	100.00%	0.002	0.000	0.062	99.93%	73,217,165
8	0.06%	0.13%	0.000	0.011	0.035	100.00%	0.001	0.000	0.031	99.99%	73,220,276
9	0.03%	0.08%	0.000	0.011	0.034	100.00%	0.001	0.000	0.019	100.00%	73,221,794

*\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report*

**Table D.6 Convergence and Stability Statistics (Low 2030 DS)**

Iteration	% GAP		Cost stability				Flow stability				Totals
	Full Model	Subset Area	RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%	Trips*
1	7.32%	13.30%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%	72,819,662
2	3.52%	5.94%	0.005	0.229	0.406	99.82%	0.109	0.016	1.982	40.70%	73,023,343
3	1.73%	2.83%	0.001	0.065	0.114	99.99%	0.040	0.008	0.989	73.52%	73,124,419
4	0.86%	1.39%	0.000	0.023	0.050	100.00%	0.019	0.004	0.494	92.99%	73,174,750
5	0.43%	0.69%	0.000	0.013	0.036	100.00%	0.009	0.002	0.247	99.01%	73,199,803
6	0.22%	0.36%	0.000	0.010	0.039	100.00%	0.005	0.001	0.124	99.73%	73,212,292
7	0.11%	0.20%	0.000	0.010	0.040	100.00%	0.002	0.000	0.062	99.93%	73,218,558
8	0.06%	0.13%	0.000	0.008	0.036	100.00%	0.001	0.000	0.035	99.99%	73,221,741
9	0.03%	0.10%	0.000	0.008	0.035	100.00%	0.001	0.000	0.018	100.00%	73,223,298

*\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report*

**Table D.7 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices  
(Low 2030 Reference DM and DS Highway Trips in PCUs)**

Segment	Matrix Type	Time Period	Reference Matrix (Low 2030)	VDM Output Matrix (Low 2030 DM)			VDM Output Matrix (Low 2030 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
HBEB	24Hr PA	N/A	2,618,184	2,619,594	1,410	0.1%	2,619,637	1,453	0.1%
HBW L	24Hr PA	N/A	2,276,688	2,276,930	242	0.0%	2,276,953	265	0.0%
HBW M	24Hr PA	N/A	4,023,929	4,023,163	-766	0.0%	4,023,241	-688	0.0%
HBW H	24Hr PA	N/A	3,149,233	3,145,156	-4,078	-0.1%	3,145,264	-3,970	-0.1%
HBO L	24Hr PA	N/A	6,539,398	6,628,353	88,955	1.4%	6,628,546	89,148	1.4%
HBO M	24Hr PA	N/A	5,868,827	5,912,218	43,391	0.7%	5,912,406	43,580	0.7%
HBO H	24Hr PA	N/A	4,221,172	4,237,141	15,969	0.4%	4,237,335	16,163	0.4%
NHBE B	By Time Period OD	AM	88,741	88,972	231	0.3%	89,027	286	0.3%
		IP	114,916	114,866	-50	0.0%	114,861	-55	0.0%
		PM	128,112	127,022	-1,090	-0.9%	127,036	-1,076	-0.8%
		OP	32,366	32,545	179	0.6%	32,536	170	0.5%
NHBO L	By Time Period OD	AM	129,332	131,459	2,127	1.6%	131,540	2,208	1.7%
		IP	343,270	347,723	4,453	1.3%	347,708	4,438	1.3%
		PM	271,138	273,154	2,016	0.7%	273,193	2,055	0.8%
		OP	75,584	77,002	1,418	1.9%	76,993	1,409	1.9%

Segment	Matrix Type	Time Period	Reference Matrix (Low 2030)	VDM Output Matrix (Low 2030 DM)			VDM Output Matrix (Low 2030 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
NHBO M	By Time Period OD	AM	137,581	138,630	1,049	0.8%	138,710	1,129	0.8%
		IP	274,500	276,725	2,225	0.8%	276,736	2,236	0.8%
		PM	272,573	272,787	214	0.1%	272,801	228	0.1%
		OP	67,595	68,442	846	1.3%	68,427	831	1.2%
NHBO H	By Time Period OD	AM	110,825	111,168	343	0.3%	111,219	394	0.4%
		IP	187,883	188,733	850	0.5%	188,734	851	0.5%
		PM	211,166	210,461	-706	-0.3%	210,529	-637	-0.3%
		OP	49,633	50,120	487	1.0%	50,104	471	0.9%
LGV	By Time Period OD	AM	810,162	810,162	0	0.0%	810,162	0	0.0%
		IP	699,722	699,722	0	0.0%	699,722	0	0.0%
		PM	584,806	584,806	0	0.0%	584,806	0	0.0%
		OP	282,087	282,087	0	0.0%	282,087	0	0.0%
HGV	By Time Period OD	AM	121,312	121,312	0	0.0%	121,312	0	0.0%
		IP	136,328	136,328	0	0.0%	136,328	0	0.0%
		PM	78,643	78,643	0	0.0%	78,643	0	0.0%
		OP	54,066	54,066	0	0.0%	54,066	0	0.0%
Port Trips EB	By Time Period OD	AM	4,485	4,485	0	0.0%	4,485	0	0.0%
		IP	3,114	3,114	0	0.0%	3,114	0	0.0%
		PM	3,907	3,907	0	0.0%	3,907	0	0.0%
		OP	1,202	1,202	0	0.0%	1,202	0	0.0%

Segment	Matrix Type	Time Period	Reference Matrix (Low 2030)	VDM Output Matrix (Low 2030 DM)			VDM Output Matrix (Low 2030 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Port Trips O LI	By Time Period OD	AM	2,594	2,594	0	0.0%	2,594	0	0.0%
		IP	3,191	3,191	0	0.0%	3,191	0	0.0%
		PM	3,170	3,170	0	0.0%	3,170	0	0.0%
		OP	1,034	1,034	0	0.0%	1,034	0	0.0%
Port Trips O MI	By Time Period OD	AM	3,023	3,023	0	0.0%	3,023	0	0.0%
		IP	3,370	3,370	0	0.0%	3,370	0	0.0%
		PM	3,716	3,716	0	0.0%	3,716	0	0.0%
		OP	1,146	1,146	0	0.0%	1,146	0	0.0%
Port Trips O HI	By Time Period OD	AM	4,288	4,288	0	0.0%	4,288	0	0.0%
		IP	3,585	3,585	0	0.0%	3,585	0	0.0%
		PM	4,746	4,746	0	0.0%	4,746	0	0.0%
		OP	1,372	1,372	0	0.0%	1,372	0	0.0%

**Table D.8 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices  
(Low 2030 Reference DM and DS Hourly PCUs)**

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (Low 2030)	VDM Output Matrix (Low 2030 DM)		VDM Output Matrix (Low 2030 DS)			Reference Matrix (Low 2030)	VDM Output Matrix (Low 2030 DM)		VDM Output Matrix (Low 2030 DS)				
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Employers Business	AM	455,835	456,865	1,030	0.2%	456,975	1,140	0.3%	38,331	39,002	671	1.7%	39,129	798	2.1%
	IP	397,319	397,303	-16	0.0%	397,290	-29	0.0%	26,583	26,603	20	0.1%	26,604	21	0.1%
	PM	547,687	545,748	-1,939	-0.4%	545,798	-1,890	-0.3%	38,910	38,882	-29	-0.1%	38,945	35	0.1%
	OP	156,593	156,945	353	0.2%	156,930	338	0.2%	10,557	10,824	267	2.5%	10,811	254	2.4%
Car Commute Low Income	AM	421,314	419,729	-1,585	-0.4%	419,714	-1,600	-0.4%	31,242	31,599	357	1.1%	31,581	340	1.1%
	IP	191,917	192,454	537	0.3%	192,466	549	0.3%	17,622	17,804	182	1.0%	17,818	196	1.1%
	PM	482,082	481,484	-598	-0.1%	481,495	-586	-0.1%	32,729	33,143	414	1.3%	33,157	427	1.3%
	OP	76,767	77,017	250	0.3%	77,018	251	0.3%	6,494	6,596	103	1.6%	6,597	103	1.6%
Car Commute Medium Income	AM	849,740	847,745	-1,995	-0.2%	847,826	-1,914	-0.2%	65,769	66,102	333	0.5%	66,188	418	0.6%
	IP	294,604	295,048	445	0.2%	295,042	439	0.1%	27,032	27,157	124	0.5%	27,154	122	0.5%
	PM	923,751	923,007	-744	-0.1%	923,049	-702	-0.1%	65,122	65,467	344	0.5%	65,513	390	0.6%
	OP	117,782	118,029	246	0.2%	118,019	237	0.2%	9,968	10,073	106	1.1%	10,064	97	1.0%
Car Commute High Income	AM	722,251	720,801	-1,450	-0.2%	720,766	-1,484	-0.2%	62,834	62,814	-20	0.0%	62,788	-46	-0.1%
	IP	210,035	209,874	-161	-0.1%	209,877	-158	-0.1%	22,975	22,971	-3	0.0%	22,979	4	0.0%
	PM	747,851	746,574	-1,277	-0.2%	746,718	-1,133	-0.2%	63,698	63,495	-203	-0.3%	63,649	-49	-0.1%
	OP	83,896	83,891	-5	0.0%	83,887	-9	0.0%	8,569	8,615	45	0.5%	8,610	41	0.5%



Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (Low 2030)	VDM Output Matrix (Low 2030 DM)		VDM Output Matrix (Low 2030 DS)			Reference Matrix (Low 2030)	VDM Output Matrix (Low 2030 DM)		VDM Output Matrix (Low 2030 DS)				
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Other Low Income	AM	696,230	707,161	10,931	1.6%	707,377	11,147	1.6%	73,847	75,542	1,696	2.3%	75,810	1,963	2.7%
	IP	1,235,014	1,250,746	15,732	1.3%	1,250,696	15,682	1.3%	102,779	104,712	1,933	1.9%	104,723	1,944	1.9%
	PM	1,208,385	1,220,979	12,594	1.0%	1,221,104	12,719	1.1%	110,433	111,440	1,006	0.9%	111,621	1,188	1.1%
	OP	385,985	392,175	6,190	1.6%	392,150	6,164	1.6%	32,823	34,042	1,218	3.7%	34,017	1,194	3.6%
Car Other Medium Income	AM	743,314	748,932	5,618	0.8%	749,112	5,798	0.8%	81,682	82,432	751	0.9%	82,671	990	1.2%
	IP	988,068	995,419	7,351	0.7%	995,443	7,374	0.7%	95,541	96,478	937	1.0%	96,564	1,023	1.1%
	PM	1,218,018	1,222,650	4,632	0.4%	1,222,706	4,688	0.4%	122,973	122,846	-127	-0.1%	122,971	-2	0.0%
	OP	345,479	348,933	3,454	1.0%	348,900	3,421	1.0%	33,155	33,992	837	2.5%	33,960	805	2.4%
Car Other High Income	AM	596,701	598,682	1,981	0.3%	598,803	2,103	0.4%	77,429	77,529	100	0.1%	77,725	296	0.4%
	IP	666,347	668,982	2,635	0.4%	668,967	2,620	0.4%	77,921	78,277	356	0.5%	78,322	401	0.5%
	PM	927,382	927,264	-118	0.0%	927,482	100	0.0%	110,108	109,170	-938	-0.9%	109,471	-637	-0.6%
	OP	249,851	251,584	1,733	0.7%	251,546	1,695	0.7%	28,915	29,534	618	2.1%	29,499	584	2.0%

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (Low 2030)	VDM Output Matrix (Low 2030 DM)		VDM Output Matrix (Low 2030 DS)			Reference Matrix (Low 2030)	VDM Output Matrix (Low 2030 DM)		VDM Output Matrix (Low 2030 DS)				
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Total	AM	4,485,384	4,499,913	14,529	0.3%	4,500,573	15,189	0.3%	431,133	435,020	3,887	0.9%	435,892	4,758	1.1%
	IP	3,983,303	4,009,826	26,523	0.7%	4,009,781	26,478	0.7%	370,453	374,003	3,550	1.0%	374,165	3,712	1.0%
	PM	6,055,155	6,067,706	12,551	0.2%	6,068,351	13,196	0.2%	543,975	544,443	469	0.1%	545,327	1,353	0.2%
	OP	1,416,353	1,428,575	12,222	0.9%	1,428,450	12,097	0.9%	130,482	133,676	3,194	2.4%	133,558	3,077	2.4%
LGV	AM	810,162	810,162	0	0.0%	810,162	0	0.0%	100,879	100,879	0	0.0%	100,879	0	0.0%
	IP	699,722	699,722	0	0.0%	699,722	0	0.0%	76,369	76,369	0	0.0%	76,369	0	0.0%
	PM	584,806	584,806	0	0.0%	584,806	0	0.0%	77,905	77,905	0	0.0%	77,905	0	0.0%
	OP	282,087	282,087	0	0.0%	282,087	0	0.0%	30,286	30,286	0	0.0%	30,286	0	0.0%
HGV	AM	121,312	121,312	0	0.0%	121,312	0	0.0%	49,550	49,550	0	0.0%	49,550	0	0.0%
	IP	136,328	136,328	0	0.0%	136,328	0	0.0%	54,564	54,564	0	0.0%	54,564	0	0.0%
	PM	78,643	78,643	0	0.0%	78,643	0	0.0%	31,275	31,275	0	0.0%	31,275	0	0.0%
	OP	54,066	54,066	0	0.0%	54,066	0	0.0%	21,384	21,384	0	0.0%	21,384	0	0.0%

## Highway Assignment Model (HAM) Convergence Statistics

D.2.4 Table D.9 to Table D.11 provide the highway assignment model convergence statistics for the 2030 low growth DM forecasts. Table D.12 to Table D.14 provide the highway assignment model convergence statistics for the 2030 low growth DS forecasts.

**Table D.9 HAM Convergence Statistics – 2030 Low Growth DM AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
47	0.0054	0.0055	98.7	99.5
48	0.0038	0.0049	98.7	99.5
49	0.0037	0.0049	98.7	99.5
50	0.0040	0.0053	98.6	99.4

**Table D.10 HAM Convergence Statistics – 2030 Low Growth DM Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
29	0.0029	0.0042	98.7	99.7
30	0.0031	0.0045	98.7	99.7
31	0.0030	0.0040	98.6	99.6
32	0.0026	0.0033	98.8	99.7

**Table D.11 HAM Convergence Statistics – 2030 Low Growth DM PM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
46	0.0033	0.0054	98.9	99.4
47	0.0035	0.0050	98.5	99.4
48	0.0033	0.0049	98.6	99.4
49	0.0039	0.0041	98.6	99.4

**Table D.12 HAM Convergence Statistics – 2030 Low Growth DS AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
51	0.0029	0.0060	98.9	99.4
52	0.0042	0.0042	98.6	99.5
53	0.0029	0.0055	98.9	99.5
54	0.0031	0.0044	98.6	99.5

**Table D.13 HAM Convergence Statistics – 2030 Low Growth DS Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
35	0.0026	0.0038	99.1	99.7
36	0.0036	0.0023	98.6	99.7
37	0.0019	0.0048	99.0	99.7
38	0.0030	0.0027	98.6	99.6

**Table D.14 HAM Convergence Statistics – 2030 Low Growth DS PM Peak**

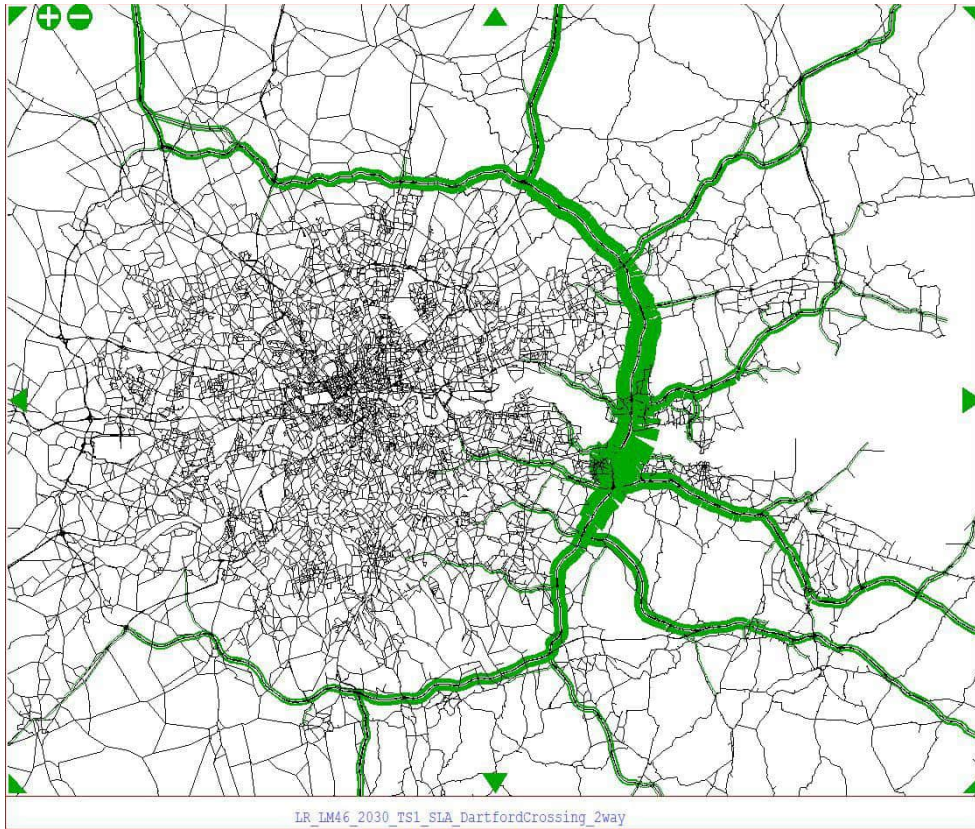
Iteration	Delta (%)	%GAP	%Flows	%Delays
56	0.0025	0.0038	98.8	99.5
57	0.0030	0.0039	98.7	99.4
58	0.0025	0.0035	98.9	99.5
59	0.0030	0.0051	99.0	99.4

D.2.5 These tables demonstrate that the LTAM has achieved the TAG convergence targets in all time periods for this scenario and year.

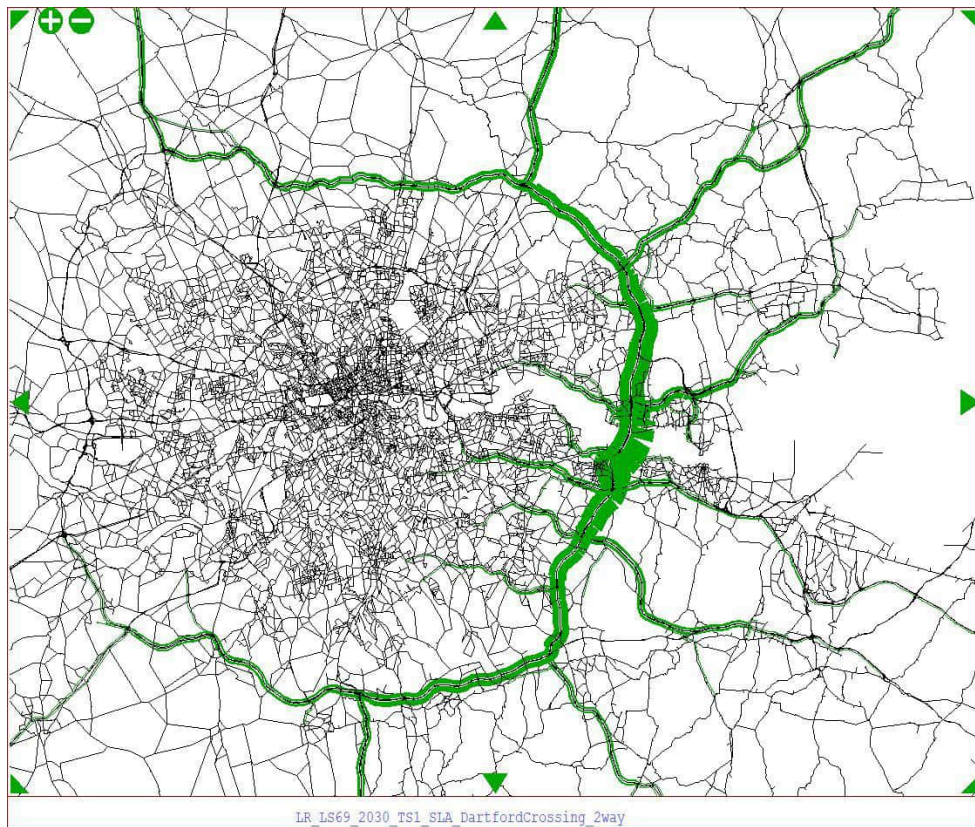
### **Movement Patterns Using the Crossings**

D.2.6 Plate D.1 to Plate D.9 provide select link analysis of movements using the Dartford and Lower Thames Crossing for the Do Minimum and Do Something scenarios for each of the model time periods. These diagrams show the pattern of movements using each of the crossings in each of the time periods. Table D.15 to Table D.17 provide a summary of the main corridors using each of the crossings and a comparison between the DM and DS scenarios for each time period.

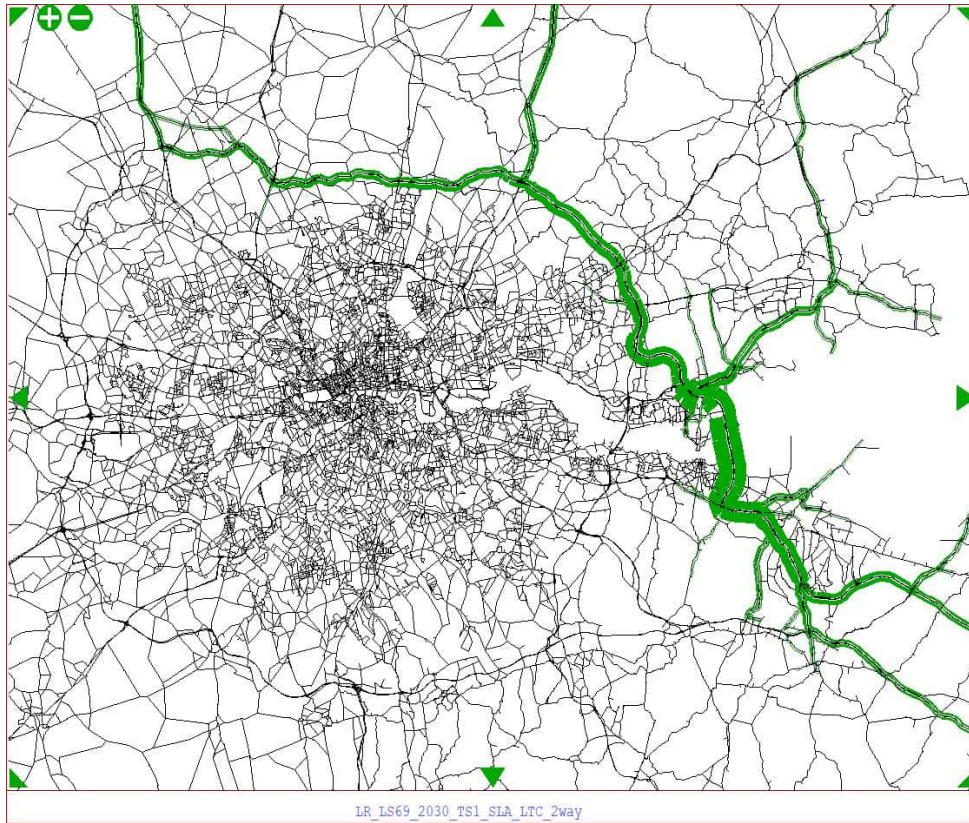
### Plate D.1 Select Link Analysis – Dartford Crossing DM 2030 Low AM Peak



### Plate D.2 Select Link Analysis – Dartford Crossing DS 2030 Low AM Peak



### Plate D.3 Select Link Analysis – Lower Thames Crossing DS 2030 Low AM Peak



**Table D.15 Select Link Analysis – Summary of Primary Corridors of Movement 2030  
Low AM Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,687	17%	3,086	24%	399	15%
	Local (Outside M25)	1,838	12%	1,734	14%	-103	-6%
	M25 South (J2-3)	7,371	48%	6,728	53%	-643	-9%
	A2/M2 to/from Kent	3,585	23%	1,166	9%	-2419	-67%
Select Link	Dartford Crossing	<b>15,481</b>	<b>100%</b>	<b>12,715</b>	<b>100%</b>	<b>-2767</b>	<b>-18%</b>
North of River	London North	2,257	15%	2,616	21%	359	16%
	Local Traffic	1,467	9%	1,245	10%	-222	-15%
	M25 North (J30-29)	8,567	55%	6,559	52%	-2008	-23%
	A13 to/from Essex	3,190	21%	2,295	18%	-895	-28%
South of River	Local Traffic	n/a	n/a	676	9%	n/a	n/a
	A2 West of LTC	n/a	n/a	457	6%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	6,581	85%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>7,713</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	638	8%	n/a	n/a
	A13 West of LTC	n/a	n/a	60	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	3,219	42%	n/a	n/a
	M25 North of LTC	n/a	n/a	3,797	49%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

### Plate D.4 Select Link Analysis – Dartford Crossing DM 2030 Low Inter Peak

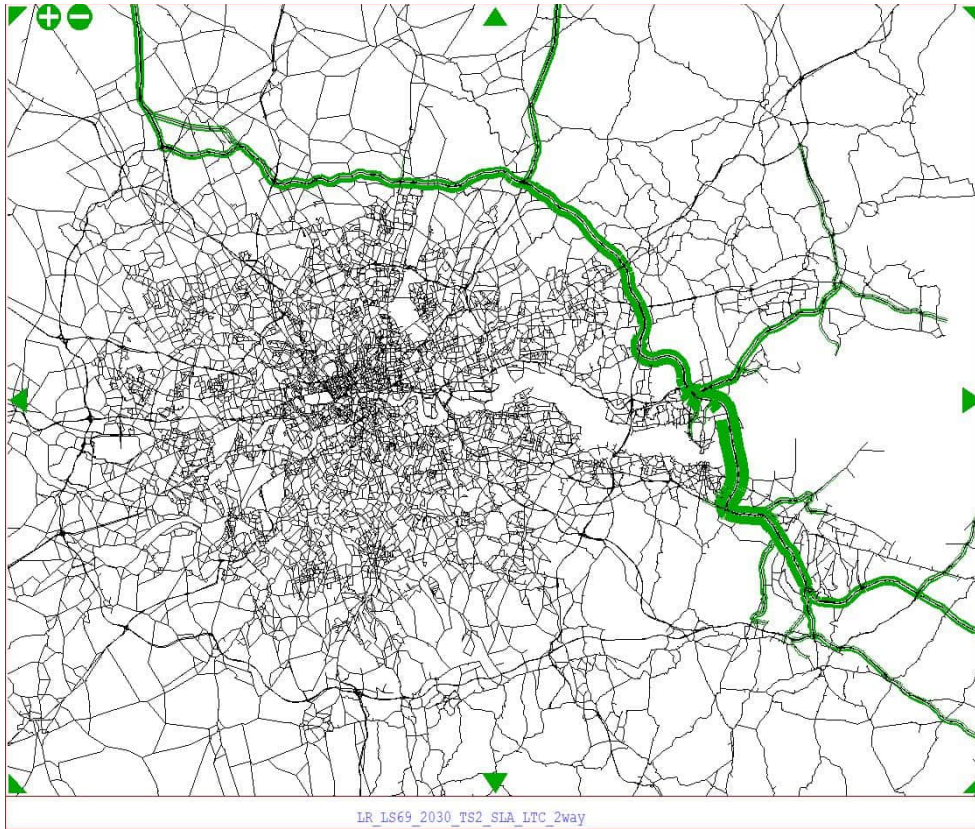


### Plate D.5 Select Link Analysis – Dartford Crossing DS 2030 Low Inter Peak





### Plate D.6 Select Link Analysis – Lower Thames Crossing DS 2030 Low Inter Peak



**Table D.16 Select Link Analysis – Summary of Primary Corridors of Movement 2030  
Low Inter Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,149	16%	2,334	23%	185	9%
	Local (Outside M25)	1,338	10%	1,240	12%	-98	-7%
	M25 South (J2-3)	6,366	47%	5,452	54%	-914	-14%
	A2/M2 to/from Kent	3,717	27%	1,050	10%	-2667	-72%
Select Link	Dartford Crossing	<b>13,571</b>	<b>100%</b>	<b>10,076</b>	<b>100%</b>	<b>-3495</b>	<b>-26%</b>
North of River	London North	1,764	13%	1,969	20%	205	12%
	Local Traffic	1,386	10%	1,367	14%	-19	-1%
	M25 North (J30-29)	7,314	54%	4,668	46%	-2647	-36%
	A13 to/from Essex	3,107	23%	2,073	21%	-1034	-33%
South of River	Local Traffic	n/a	n/a	631	10%	n/a	n/a
	A2 West of LTC	n/a	n/a	333	5%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	5,152	84%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>6,117</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	492	8%	n/a	n/a
	A13 West of LTC	n/a	n/a	20	0%	n/a	n/a
	A13 East of LTC	n/a	n/a	2,333	38%	n/a	n/a
	M25 North of LTC	n/a	n/a	3,271	53%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

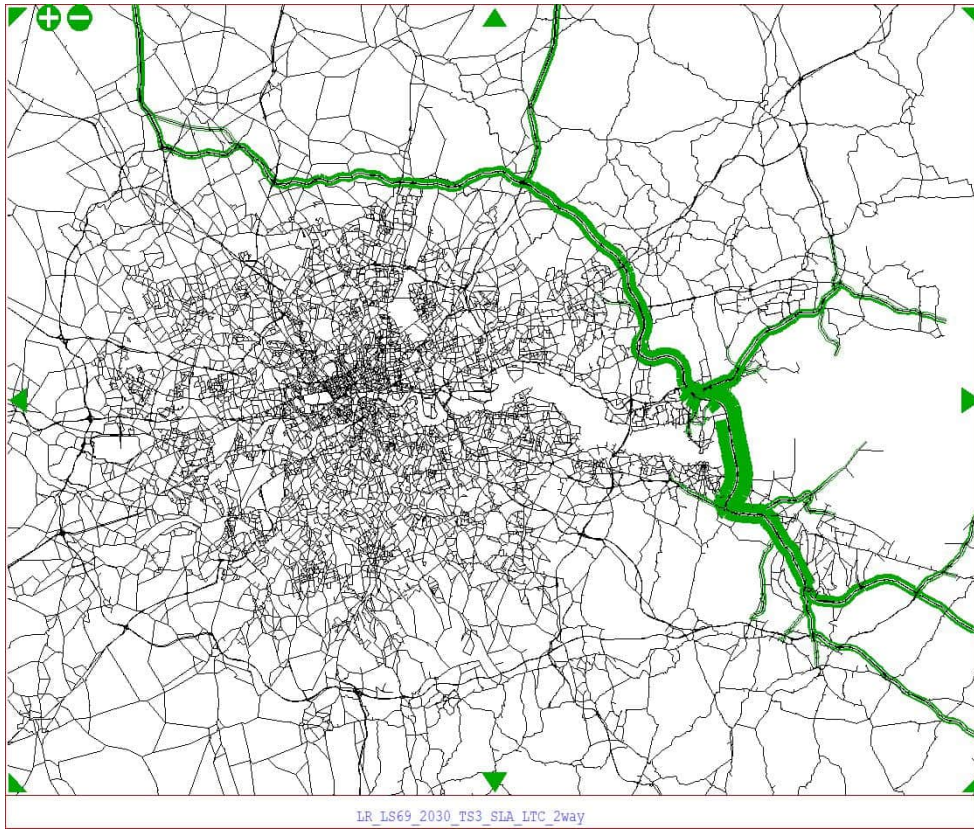
### Plate D.7 Select Link Analysis – Dartford Crossing DM 2030 Low PM Peak



### Plate D.8 Select Link Analysis – Dartford Crossing DS 2030 Low PM Peak



### Plate D.9 Select Link Analysis – Lower Thames Crossing DS 2030 Low PM Peak



**Table D.17 Select Link Analysis – Summary of Primary Corridors of Movement 2030  
Low PM Peak Two-Way Flow**

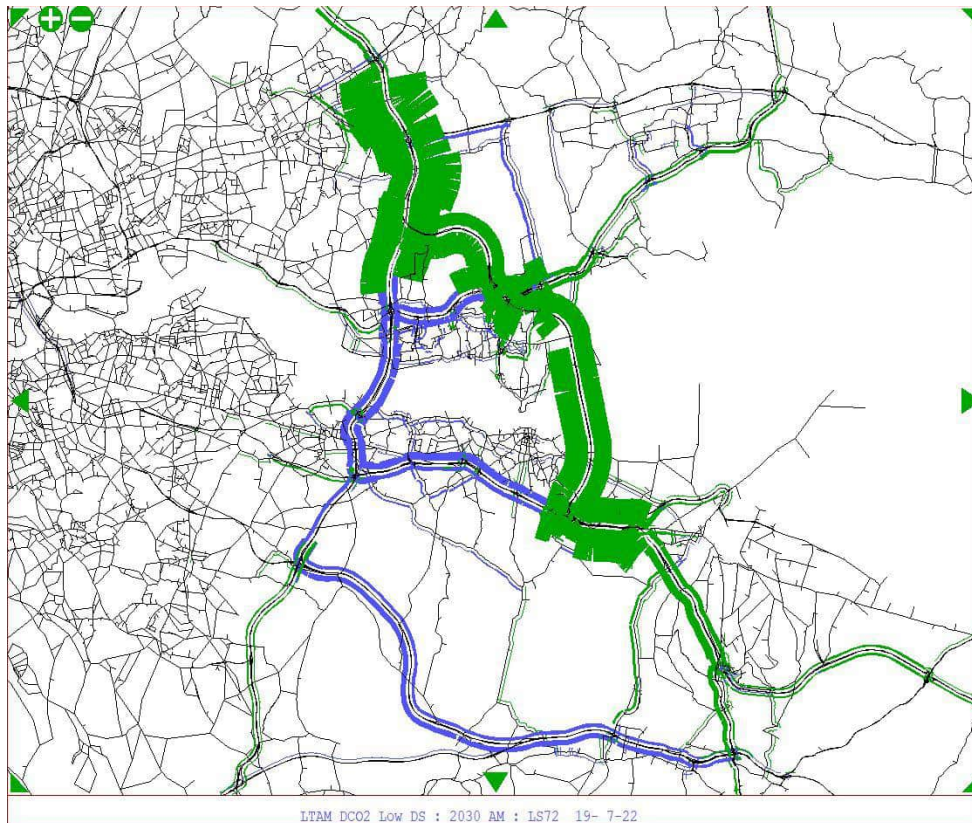
Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,442	17%	2,795	24%	353	14%
	Local (Outside M25)	1,640	11%	1,466	13%	-174	-11%
	M25 South (J2-3)	6,561	45%	5,767	50%	-794	-12%
	A2/M2 to/from Kent	3,908	27%	1,443	13%	-2465	-63%
Select Link	Dartford Crossing	<b>14,551</b>	<b>100%</b>	<b>11,471</b>	<b>100%</b>	<b>-3080</b>	<b>-21%</b>
North of River	London North	2,403	17%	2,799	24%	397	17%
	Local Traffic	1,434	10%	1,384	12%	-50	-3%
	M25 North (J30-29)	7,515	52%	5,156	45%	-2359	-31%
	A13 to/from Essex	3,200	22%	2,132	19%	-1068	-33%
South of River	Local Traffic	n/a	n/a	956	12%	n/a	n/a
	A2 West of LTC	n/a	n/a	606	8%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	6,147	80%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>7,709</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	672	9%	n/a	n/a
	A13 West of LTC	n/a	n/a	23	0%	n/a	n/a
	A13 East of LTC	n/a	n/a	3,582	46%	n/a	n/a
	M25 North of LTC	n/a	n/a	3,432	45%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

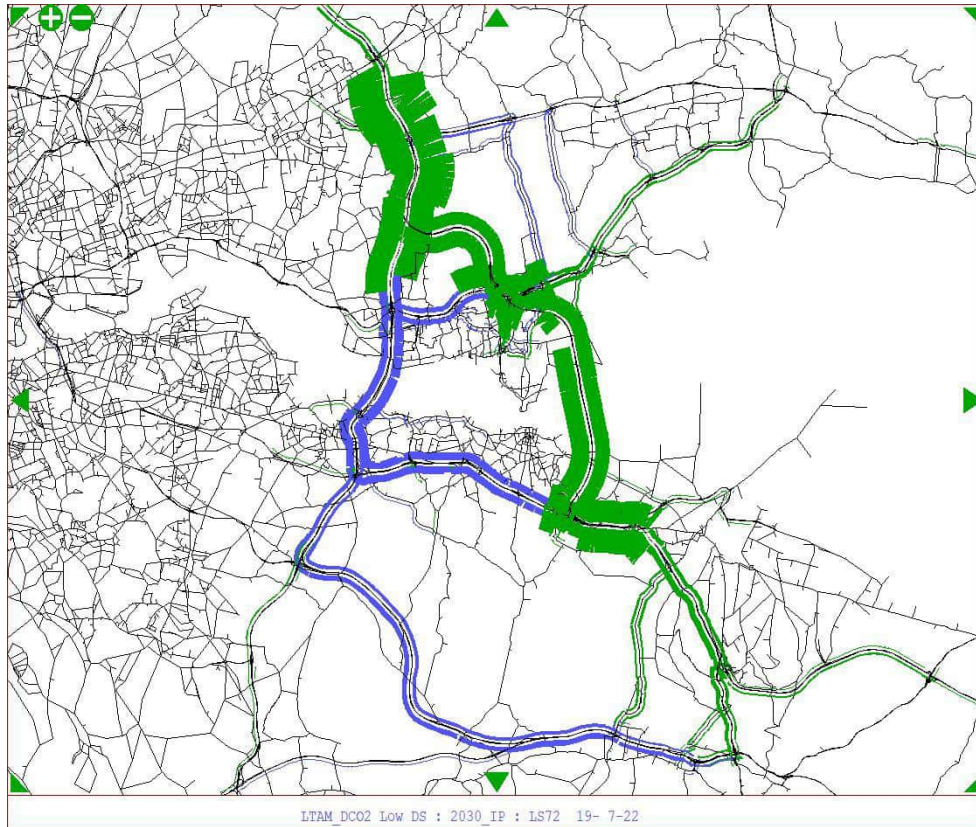
## DM Vs DS Flow Comparisons

- D.2.7 The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Plate D.10 to Plate D.12 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCUs per hour have been excluded from the colouring.
- D.2.8 Table D.18 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link approaching the TMC. Table D.19 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link after the TMC.

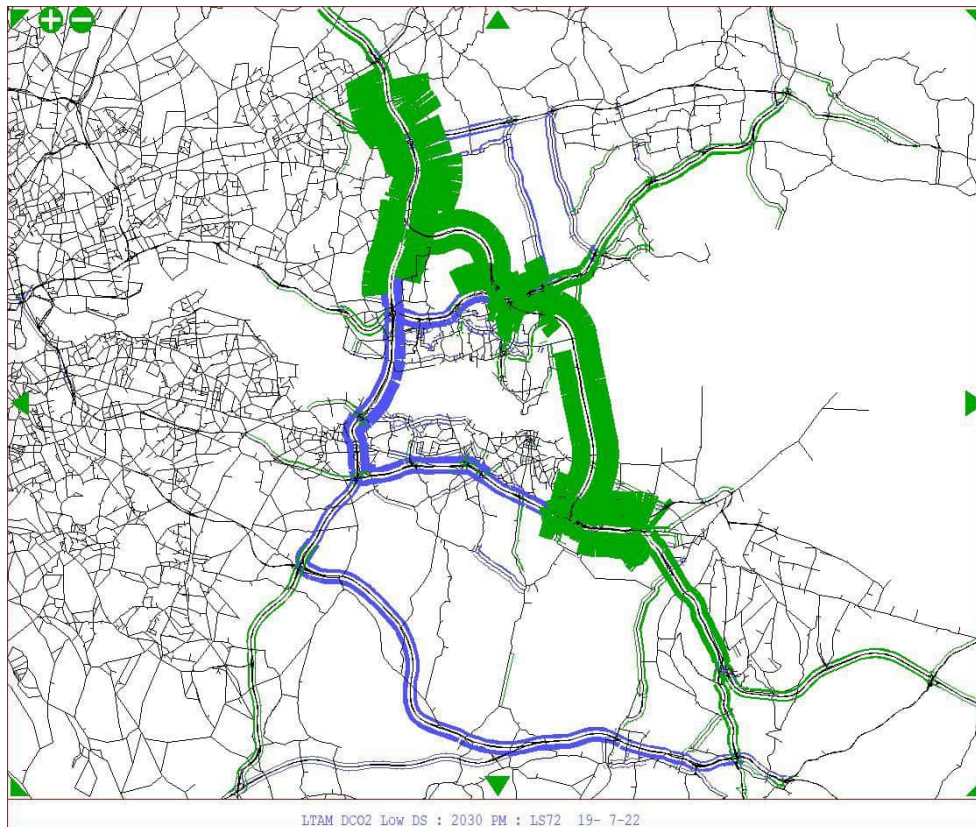
**Plate D.10 Actual Flow Comparison Plot – 2030 Low Growth DM Vs DS AM Peak**



### Plate D.11 Actual Flow Comparison Plot – 2030 Low Growth DM Vs DS Inter Peak



### Plate D.12 Actual Flow Comparison Plot – 2030 Low Growth DM Vs DS PM Peak



**Table D.18 Cross River Traffic Flows (NB Flows Approaching TMC) – 2030 Low Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,731	3,431	-300	-8%	1,650	1,467	-183	-11%	3,120	2,322	-797	-26%	8,500	7,220	-1,280	-15%	8,500	1.00	0.85
		IP	3,171	2,547	-624	-20%	772	632	-140	-18%	2,738	1,731	-1,006	-37%	6,681	4,911	-1,770	-26%	8,500	0.79	0.58
		PM	4,857	3,810	-1,046	-22%	1,038	779	-259	-25%	1,895	1,162	-733	-39%	7,790	5,751	-2,038	-26%	8,500	0.92	0.68
	LTC	AM	0	2,056	-	-	0	298	-	-	0	1,013	-	-	0	3,367	-	-	6,360	-	0.53
		IP	0	1,503	-	-	0	157	-	-	0	1,050	-	-	0	2,710	-	-	6,360	-	0.43
		PM	0	3,205	-	-	0	288	-	-	0	785	-	-	0	4,278	-	-	6,360	-	0.67
	Total	AM	3,731	5,486	1,756	47%	1,650	1,765	115	7%	3,120	3,335	216	7%	8,500	10,587	2,087	25%	14,860	-	0.71
		IP	3,171	4,051	880	28%	772	789	17	2%	2,738	2,781	43	2%	6,681	7,621	940	14%	14,860	-	0.51
		PM	4,857	7,015	2,159	44%	1,038	1,067	29	3%	1,895	1,947	52	3%	7,790	10,029	2,239	29%	14,860	-	0.67
NB	Dartford*	AM	3,766	3,096	-670	-18%	1,334	942	-391	-29%	2,275	1,456	-818	-36%	7,375	5,495	-1,880	-25%	6,981	1.06	0.79
		IP	3,140	2,630	-511	-16%	884	630	-253	-29%	3,072	1,905	-1,167	-38%	7,096	5,165	-1,930	-27%	6,890	1.03	0.75
		PM	4,467	3,837	-629	-14%	904	728	-176	-19%	1,810	1,155	-655	-36%	7,180	5,720	-1,461	-20%	6,762	1.06	0.85
	LTC	AM	0	2,889	-	-	0	498	-	-	0	960	-	-	0	4,347	-	-	6,360	-	0.68
		IP	0	1,829	-	-	0	294	-	-	0	1,283	-	-	0	3,406	-	-	6,360	-	0.54
		PM	0	2,496	-	-	0	234	-	-	0	701	-	-	0	3,431	-	-	6,360	-	0.54
	Total	AM	3,766	5,985	2,219	59%	1,334	1,440	107	8%	2,275	2,416	142	6%	7,375	9,841	2,467	33%	13,341	-	0.74
		IP	3,140	4,459	1,319	42%	884	924	41	5%	3,072	3,189	117	4%	7,096	8,572	1,476	21%	13,250	-	0.65
		PM	4,467	6,333	1,867	42%	904	962	58	6%	1,810	1,856	45	3%	7,180	9,151	1,970	27%	13,122	-	0.70

\* Flows are extracted for the link approaching the TMC



**Table D.19 Cross River Traffic Flows (NB Flows After TMC) – 2030 Low Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,731	3,431	-300	-8%	1,650	1,467	-183	-11%	3,120	2,322	-797	-26%	8,500	7,220	-1,280	-15%	8,500	1.00	0.85
		IP	3,171	2,547	-624	-20%	772	632	-140	-18%	2,738	1,731	-1,006	-37%	6,681	4,911	-1,770	-26%	8,500	0.79	0.58
		PM	4,857	3,810	-1,046	-22%	1,038	779	-259	-25%	1,895	1,162	-733	-39%	7,790	5,751	-2,038	-26%	8,500	0.92	0.68
	LTC	AM	0	2,056	-	-	0	298	-	-	0	1,013	-	-	0	3,367	-	-	6,360	-	0.53
		IP	0	1,503	-	-	0	157	-	-	0	1,050	-	-	0	2,710	-	-	6,360	-	0.43
		PM	0	3,205	-	-	0	288	-	-	0	785	-	-	0	4,278	-	-	6,360	-	0.67
	Total	AM	3,731	5,486	1,756	47%	1,650	1,765	115	7%	3,120	3,335	216	7%	8,500	10,587	2,087	25%	14,860	-	0.71
		IP	3,171	4,051	880	28%	772	789	17	2%	2,738	2,781	43	2%	6,681	7,621	940	14%	14,860	-	0.51
		PM	4,857	7,015	2,159	44%	1,038	1,067	29	3%	1,895	1,947	52	3%	7,790	10,029	2,239	29%	14,860	-	0.67
NB	Dartford*	AM	3,568	3,096	-471	-13%	1,263	942	-321	-25%	2,151	1,456	-694	-32%	6,981	5,495	-1,486	-21%	6,981	1.00	0.79
		IP	3,050	2,630	-420	-14%	858	630	-228	-27%	2,982	1,905	-1,077	-36%	6,890	5,165	-1,725	-25%	6,890	1.00	0.75
		PM	4,205	3,837	-368	-9%	851	728	-124	-15%	1,705	1,155	-550	-32%	6,762	5,720	-1,042	-15%	6,762	1.00	0.85
	LTC	AM	0	2,889	-	-	0	498	-	-	0	960	-	-	0	4,347	-	-	6,360	-	0.68
		IP	0	1,829	-	-	0	294	-	-	0	1,283	-	-	0	3,406	-	-	6,360	-	0.54
		PM	0	2,496	-	-	0	234	-	-	0	701	-	-	0	3,431	-	-	6,360	-	0.54
	Total	AM	3,568	5,985	2,417	68%	1,263	1,440	177	14%	2,151	2,416	266	12%	6,981	9,841	2,860	41%	13,341	-	0.74
		IP	3,050	4,459	1,409	46%	858	924	66	8%	2,982	3,189	207	7%	6,890	8,572	1,682	24%	13,250	-	0.65
		PM	4,205	6,333	2,128	51%	851	962	111	13%	1,705	1,856	150	9%	6,762	9,151	2,389	35%	13,122	-	0.70

\* Flows are extracted for the link after the TMC

D.2.9 The movements considered critical to understanding the impacts of the scheme are the same as those described in Chapter 8 of the main document. Table D.20 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

**Table D.20 Key Corridor Traffic Flows – 2030 Low Growth DM Vs DS  
(Hourly Flows in PCUs)**

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	7,138	9,180	0.78	8,194	9,180	0.89	1,056	15%
		IP	6,294	9,180	0.69	6,835	9,180	0.74	541	9%
		PM	6,481	9,180	0.71	7,164	9,180	0.78	683	11%
	M25 J28 to M25 J29 (SB)	AM	7,272	9,115	0.80	7,518	9,180	0.82	247	3%
		IP	6,630	9,115	0.73	6,945	9,180	0.76	315	5%
		PM	7,148	9,115	0.78	7,696	9,180	0.84	547	8%
B	M25 J4 to M25 J3 (NB)	AM	5,154	6,850	0.75	5,318	6,850	0.78	164	3%
		IP	5,067	6,850	0.74	5,195	6,850	0.76	128	3%
		PM	5,785	6,850	0.84	5,958	6,850	0.87	173	3%
	M25 J3 to M25 J4 (SB)	AM	6,619	6,850	0.97	6,764	6,850	0.99	145	2%
		IP	4,696	6,850	0.69	4,752	6,850	0.69	57	1%
		PM	5,377	6,850	0.79	5,539	6,850	0.81	161	3%
C	A13 A126 to A1012 (EB)	AM	4,773	6,310	0.76	3,798	6,298	0.60	-975	-20%
		IP	4,795	6,297	0.76	4,019	6,287	0.64	-776	-16%
		PM	5,752	6,265	0.92	5,359	6,239	0.86	-393	-7%
	A13 A1012 to A126 (WB)	AM	6,093	6,360	0.96	5,287	6,360	0.83	-806	-13%
		IP	5,103	6,360	0.80	4,173	6,360	0.66	-930	-18%
		PM	5,549	6,360	0.87	4,484	6,360	0.71	-1,065	-19%
D	A13 Orsett Cock to Manor Way (EB)	AM	4,403	6,370	0.69	5,085	6,370	0.80	682	15%
		IP	3,851	6,370	0.60	4,425	6,370	0.69	574	15%
		PM	4,748	6,370	0.75	5,569	6,370	0.87	821	17%
	A13 Manor Way to Orsett Cock (WB)	AM	5,052	6,220	0.81	5,694	6,220	0.92	642	13%
		IP	3,933	6,220	0.63	4,584	6,220	0.74	651	17%
		PM	4,295	6,220	0.69	5,440	6,220	0.87	1,145	27%

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
E	A2 A227 to Gravesend East (EB)	AM	5,630	9,242	0.61	4,526	9,235	0.49	-1,103	-20%
		IP	5,698	9,197	0.62	4,596	9,190	0.50	-1,101	-19%
		PM	8,932	9,187	0.97	8,184	9,176	0.89	-748	-8%
	A2 Gravesend East to A227 (WB)	AM	6,765	7,226	0.94	6,144	7,009	0.88	-621	-9%
		IP	5,536	7,062	0.78	4,402	6,882	0.64	-1,134	-20%
		PM	5,731	6,889	0.83	5,207	6,749	0.77	-523	-9%
F	M2 J1 to M2 J2 (EB)	AM	4,778	8,503	0.56	5,671	8,343	0.68	893	19%
		IP	3,954	8,643	0.46	4,740	8,430	0.56	787	20%
		PM	6,099	8,547	0.71	7,393	8,498	0.87	1,294	21%
	M2 J2 to M2 J1 (WB)	AM	5,256	8,820	0.60	6,903	8,661	0.80	1,647	31%
		IP	3,680	8,849	0.42	4,937	8,822	0.56	1,257	34%
		PM	4,780	8,918	0.54	5,914	8,708	0.68	1,133	24%
G	M20 J3 to M20 J4 (EB)	AM	5,193	9,115	0.57	4,653	9,115	0.51	-539	-10%
		IP	5,005	9,115	0.55	4,498	9,115	0.49	-507	-10%
		PM	8,045	9,115	0.88	7,504	9,115	0.82	-540	-7%
	M20 J4 to M20 J3 (WB)	AM	8,197	9,115	0.90	7,374	9,115	0.81	-823	-10%
		IP	4,733	9,115	0.52	3,840	9,115	0.42	-892	-19%
		PM	4,986	9,115	0.55	4,155	9,115	0.46	-831	-17%

## DM Vs DS Journey Time Comparisons

- D.2.10 The same link based and route based journey time comparisons introduced under Chapter 8 of the main document are repeated for this year scenario combination.
- D.2.11 The link based journey time comparisons for this scenario are presented in Table D.21 to Table D.23.
- D.2.12 Table D.24 to Table D.29 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

**Table D.21 Link Based Journey Time Scenario Comparison (2030 Low Growth DM Vs DS) AM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance	Time	Av Speed
M25 clockwise	A to B	M25 J26	M25 J29	23.5	15.7	89.9	23.5	16.0	87.9	0.0	0.3	-2.0	-0.1%	2.1%	-2.2%
	B to D	M25 J29	M25 J2	18.8	17.2	65.5	18.9	13.6	83.2	0.1	-3.6	17.7	0.3%	-21.1%	27.1%
	D to F	M25 J2	M25 J7	37.7	27.2	83.3	37.7	28.2	80.3	0.0	1.0	-3.0	0.0%	3.7%	-3.6%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	24.0	94.9	38.0	24.3	94.0	0.0	0.3	-1.0	0.0%	1.0%	-1.0%
	D to B	M25 J2	M25 J29	18.7	18.2	61.7	18.8	13.2	85.5	0.1	-5.0	23.8	0.6%	-27.3%	38.5%
	B to A	M25 J29	M25 J26	23.2	15.9	87.4	23.1	17.6	78.7	-0.1	1.7	-8.7	-0.3%	10.7%	-9.9%
A13 EB	C to G	M25 J30	A1089	5.2	4.6	67.4	5.3	4.1	77.2	0.0	-0.6	9.8	0.9%	-11.9%	14.5%
	G to H	A1089	A130	15.7	11.4	82.8	15.7	12.2	77.0	-0.1	0.8	-5.8	-0.4%	7.2%	-7.1%
A13 WB	H to G	A130	A1089	15.3	13.8	66.3	15.2	14.8	61.3	-0.1	1.0	-5.0	-0.7%	7.4%	-7.5%
	G to C	A1089	M25 J30	5.5	8.1	40.8	5.6	5.5	61.0	0.1	-2.6	20.3	1.6%	-32.2%	49.8%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	9.1	100.7	15.3	8.7	105.4	0.1	-0.4	4.7	0.5%	-4.0%	4.7%
	I to J	M2 J1	M2 J4	14.7	8.3	106.3	14.7	8.5	103.8	0.0	0.2	-2.5	0.0%	2.4%	-2.4%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	8.9	102.1	15.1	9.5	95.5	-0.1	0.6	-6.6	-0.7%	6.2%	-6.4%
	I to D	M2 J1	M25 J2	14.8	16.4	54.1	14.8	12.3	72.7	0.1	-4.1	18.7	0.6%	-25.2%	34.5%
M20 EB	E to K	M25 J3	M20 J8	35.3	19.9	106.5	35.3	19.7	107.6	0.0	-0.2	1.2	0.0%	-1.1%	1.1%
M20 WB	K to E	M20 J8	M25 J3	35.3	23.2	91.3	35.3	21.7	97.7	0.0	-1.5	6.4	0.0%	-6.5%	7.0%

**Table D.22 Link Based Journey Time Scenario Comparison (2030 Low Growth DM Vs DS) Inter Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance	Time	Av Speed
M25 clockwise	A to B	M25 J26	M25 J29	23.5	14.8	95.5	23.5	15.0	93.9	0.0	0.2	-1.6	-0.1%	1.6%	-1.7%
	B to D	M25 J29	M25 J2	18.8	12.9	87.6	18.9	12.0	94.4	0.1	-0.9	6.8	0.3%	-7.0%	7.8%
	D to F	M25 J2	M25 J7	37.7	22.9	98.8	37.7	22.9	99.0	0.0	-0.1	0.2	0.0%	-0.2%	0.2%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	23.3	97.7	38.0	23.4	97.3	0.0	0.1	-0.4	0.0%	0.4%	-0.4%
	D to B	M25 J2	M25 J29	18.7	15.9	70.6	18.8	12.8	88.3	0.1	-3.1	17.7	0.6%	-19.5%	25.0%
	B to A	M25 J29	M25 J26	23.2	14.1	99.0	23.1	14.4	96.4	-0.1	0.3	-2.6	-0.3%	2.4%	-2.6%
A13 EB	C to G	M25 J30	A1089	5.2	4.7	66.2	5.3	4.2	76.0	0.0	-0.6	9.7	0.9%	-12.0%	14.7%
	G to H	A1089	A130	15.7	11.0	86.0	15.7	11.4	82.6	-0.1	0.4	-3.3	-0.4%	3.6%	-3.9%
A13 WB	H to G	A130	A1089	15.3	10.8	85.2	15.2	11.2	81.0	-0.1	0.5	-4.2	-0.7%	4.5%	-4.9%
	G to C	A1089	M25 J30	5.5	5.3	62.7	5.6	4.5	74.1	0.1	-0.7	11.4	1.6%	-14.0%	18.1%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	9.0	101.4	15.3	8.7	105.6	0.1	-0.3	4.2	0.5%	-3.5%	4.1%
	I to J	M2 J1	M2 J4	14.7	8.2	108.1	14.7	8.3	106.8	0.0	0.1	-1.3	0.0%	1.2%	-1.2%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	8.4	108.8	15.1	8.5	106.6	-0.1	0.1	-2.2	-0.7%	1.4%	-2.0%
	I to D	M2 J1	M25 J2	14.8	10.1	88.1	14.8	8.7	102.2	0.1	-1.3	14.1	0.6%	-13.3%	16.0%
M20 EB	E to K	M25 J3	M20 J8	35.3	19.6	108.1	35.3	19.5	108.8	0.0	-0.1	0.7	0.0%	-0.7%	0.7%
M20 WB	K to E	M20 J8	M25 J3	35.3	19.8	107.0	35.3	19.6	108.2	0.0	-0.2	1.2	0.0%	-1.1%	1.1%

**Table D.23 Link Based Journey Time Scenario Comparison (2030 Low Growth DM Vs DS) PM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance	Time	Av Speed
M25 clockwise	A to B	M25 J26	M25 J29	23.5	16.3	86.7	23.5	17.1	82.6	0.0	0.8	-4.1	-0.1%	4.8%	-4.7%
	B to D	M25 J29	M25 J2	18.8	15.0	75.2	18.9	12.5	90.9	0.1	-2.6	15.7	0.3%	-17.0%	20.8%
	D to F	M25 J2	M25 J7	37.7	23.3	97.3	37.7	23.3	97.1	0.0	0.1	-0.2	0.0%	0.2%	-0.2%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	26.3	86.6	38.0	26.8	85.2	0.0	0.4	-1.5	0.0%	1.7%	-1.7%
	D to B	M25 J2	M25 J29	18.7	16.7	67.3	18.8	13.1	85.9	0.1	-3.5	18.6	0.6%	-21.1%	27.6%
	B to A	M25 J29	M25 J26	23.2	14.0	99.2	23.1	14.5	95.7	-0.1	0.5	-3.5	-0.3%	3.3%	-3.5%
A13 EB	C to G	M25 J30	A1089	5.2	7.2	43.3	5.3	5.1	61.4	0.0	-2.1	18.1	0.9%	-28.9%	41.9%
	G to H	A1089	A130	15.7	12.4	75.8	15.7	13.7	68.7	-0.1	1.3	-7.2	-0.4%	10.1%	-9.5%
A13 WB	H to G	A130	A1089	15.3	10.7	85.3	15.2	12.4	73.3	-0.1	1.7	-12.0	-0.7%	15.5%	-14.0%
	G to C	A1089	M25 J30	5.5	6.2	53.6	5.6	4.6	72.5	0.1	-1.5	18.9	1.6%	-24.9%	35.3%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	13.5	68.1	15.3	10.4	88.5	0.1	-3.1	20.4	0.5%	-22.7%	30.0%
	I to J	M2 J1	M2 J4	14.7	9.0	97.7	14.7	10.4	84.7	0.0	1.4	-13.0	0.0%	15.3%	-13.3%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	8.6	105.6	15.1	8.8	102.6	-0.1	0.2	-3.1	-0.7%	2.3%	-2.9%
	I to D	M2 J1	M25 J2	14.8	12.1	73.2	14.8	9.9	90.3	0.1	-2.2	17.1	0.6%	-18.5%	23.4%
M20 EB	E to K	M25 J3	M20 J8	35.3	23.3	91.0	35.3	22.3	95.2	0.0	-1.0	4.2	0.0%	-4.4%	4.6%
M20 WB	K to E	M20 J8	M25 J3	35.3	20.1	105.7	35.3	19.8	107.1	0.0	-0.3	1.4	0.0%	-1.3%	1.3%

**Table D.24 Route Based Journey Time Comparison North to South Movements (2030 Low Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
1 to 7	Cheshunt	Bexley	61.8	57.3	64.7	61.8	55.2	67.1	0.0	-2.1	2.5	0.0%	-3.6%	3.8%
1 to 8	Cheshunt	Godstone	91.5	76.0	72.2	91.5	73.6	74.6	0.0	-2.4	2.4	0.0%	-3.2%	3.3%
1 to 9	Cheshunt	Southfleet	62.1	53.5	69.6	62.1	50.1	74.5	0.0	-3.5	4.8	0.0%	-6.5%	6.9%
1 to 10	Cheshunt	Maidstone	88.1	70.8	74.6	82.8	67.9	73.2	-5.3	-2.9	-1.5	-6.0%	-4.1%	-2.0%
1 to 11	Cheshunt	Rochester	74.4	68.7	65.0	70.2	60.7	69.4	-4.2	-8.0	4.4	-5.6%	-11.6%	6.7%
1 to 12	Cheshunt	Rainham	91.4	74.2	73.9	87.3	66.1	79.2	-4.1	-8.1	5.3	-4.5%	-10.9%	7.2%
2 to 7	Romford	Bexley	31.8	48.5	39.4	35.6	42.9	49.8	3.7	-5.7	10.4	11.7%	-11.6%	26.5%
2 to 8	Romford	Godstone	61.5	67.2	54.9	65.3	61.2	63.9	3.7	-6.0	9.0	6.1%	-8.9%	16.4%
2 to 9	Romford	Southfleet	32.2	44.8	43.1	35.9	37.7	57.1	3.7	-7.0	14.0	11.6%	-15.7%	32.4%
2 to 10	Romford	Maidstone	58.2	62.1	56.3	56.6	55.6	61.1	-1.6	-6.5	4.8	-2.7%	-10.4%	8.6%
2 to 11	Romford	Rochester	44.5	59.9	44.5	44.0	48.4	54.5	-0.5	-11.5	10.0	-1.1%	-19.3%	22.5%
2 to 12	Romford	Rainham	61.4	65.5	56.3	61.1	53.8	68.1	-0.4	-11.7	11.8	-0.6%	-17.8%	20.9%
3 to 7	Brentwood	Bexley	33.0	39.6	50.0	32.9	36.5	54.1	-0.1	-3.1	4.2	-0.3%	-7.9%	8.3%
3 to 8	Brentwood	Godstone	62.7	58.3	64.5	62.6	54.9	68.5	-0.1	-3.5	4.0	-0.1%	-5.9%	6.2%
3 to 9	Brentwood	Southfleet	33.3	35.8	55.8	33.2	31.3	63.6	-0.1	-4.5	7.9	-0.3%	-12.6%	14.1%
3 to 10	Brentwood	Maidstone	59.3	53.1	67.0	53.9	49.2	65.8	-5.4	-4.0	-1.2	-9.1%	-7.5%	-1.8%
3 to 11	Brentwood	Rochester	45.6	51.0	53.6	41.3	42.0	59.0	-4.3	-9.0	5.4	-9.5%	-17.7%	10.0%
3 to 12	Brentwood	Rainham	62.6	56.5	66.4	58.4	47.4	73.9	-4.2	-9.1	7.5	-6.7%	-16.2%	11.3%
4 to 7	Basildon	Bexley	37.1	48.6	45.8	39.6	46.3	51.3	2.5	-2.3	5.5	6.8%	-4.7%	12.0%
4 to 8	Basildon	Godstone	66.8	67.3	59.6	69.3	64.7	64.3	2.5	-2.6	4.7	3.8%	-3.9%	7.9%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
4 to 9	Basildon	Southfleet	37.4	44.8	50.1	34.2	36.1	56.8	-3.2	-8.7	6.7	-8.5%	-19.4%	13.4%
4 to 10	Basildon	Maidstone	63.4	62.1	61.3	48.4	51.8	56.1	-15.0	-10.3	-5.2	-23.7%	-16.6%	-8.4%
4 to 11	Basildon	Rochester	49.7	60.0	49.7	35.8	44.6	48.2	-13.9	-15.4	-1.6	-28.0%	-25.6%	-3.1%
4 to 12	Basildon	Rainham	66.7	65.5	61.1	52.9	50.0	63.5	-13.8	-15.5	2.4	-20.7%	-23.7%	3.9%
5 to 7	Tilbury Port	Bexley	28.3	35.7	47.6	28.3	31.4	54.2	0.0	-4.3	6.5	0.0%	-12.1%	13.7%
5 to 8	Tilbury Port	Godstone	58.0	54.4	64.0	58.0	49.7	70.0	0.0	-4.6	6.0	0.0%	-8.5%	9.3%
5 to 9	Tilbury Port	Southfleet	28.6	31.9	53.9	27.7	21.3	78.0	-0.9	-10.6	24.1	-3.2%	-33.1%	44.7%
5 to 10	Tilbury Port	Maidstone	54.6	49.2	66.7	41.9	37.0	68.0	-12.7	-12.2	1.4	-23.3%	-24.8%	2.0%
5 to 11	Tilbury Port	Rochester	40.9	47.1	52.2	29.3	29.8	59.0	-11.6	-17.3	6.8	-28.4%	-36.7%	13.1%
5 to 12	Tilbury Port	Rainham	57.9	52.6	66.1	46.4	35.2	79.1	-11.5	-17.4	13.0	-19.9%	-33.1%	19.7%
6 to 7	DP World	Bexley	32.1	39.7	48.5	32.1	35.4	54.5	0.0	-4.4	6.0	0.0%	-11.0%	12.3%
6 to 8	DP World	Godstone	61.8	58.4	63.5	61.8	53.7	69.0	0.0	-4.7	5.5	0.0%	-8.0%	8.7%
6 to 9	DP World	Southfleet	32.4	35.9	54.1	29.0	23.7	73.4	-3.4	-12.2	19.3	-10.4%	-34.0%	35.7%
6 to 10	DP World	Maidstone	58.4	53.2	65.9	43.2	39.4	65.9	-15.2	-13.9	0.0	-26.0%	-26.0%	0.0%
6 to 11	DP World	Rochester	44.7	51.1	52.5	30.6	32.2	57.1	-14.1	-18.9	4.6	-31.5%	-37.0%	8.7%
6 to 12	DP World	Rainham	61.7	56.6	65.4	47.7	37.6	76.1	-14.0	-19.0	10.8	-22.7%	-33.6%	16.5%



**Table D.25 Route Based Journey Time Comparison North to South Movements (2030 Low Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
1 to 7	Cheshunt	Bexley	62.1	48.5	76.9	62.1	48.0	77.7	0.0	-0.5	0.8	0.0%	-1.0%	1.0%
1 to 8	Cheshunt	Godstone	91.5	64.1	85.6	91.5	63.5	86.4	0.0	-0.6	0.8	0.0%	-1.0%	1.0%
1 to 9	Cheshunt	Southfleet	62.2	45.9	81.3	62.2	45.1	82.7	0.0	-0.8	1.4	0.0%	-1.8%	1.8%
1 to 10	Cheshunt	Maidstone	88.2	61.6	85.9	82.9	58.6	84.8	-5.3	-3.0	-1.1	-6.1%	-4.9%	-1.2%
1 to 11	Cheshunt	Rochester	74.4	58.9	75.8	70.1	54.3	77.5	-4.3	-4.6	1.7	-5.8%	-7.9%	2.3%
1 to 12	Cheshunt	Rainham	91.5	66.2	82.9	87.3	61.5	85.3	-4.1	-4.7	2.3	-4.5%	-7.1%	2.8%
2 to 7	Romford	Bexley	35.8	38.1	56.4	35.8	36.8	58.4	0.0	-1.3	2.0	0.0%	-3.4%	3.5%
2 to 8	Romford	Godstone	65.2	53.8	72.8	65.3	52.4	74.7	0.0	-1.4	2.0	0.0%	-2.6%	2.7%
2 to 9	Romford	Southfleet	35.9	35.6	60.6	35.9	34.0	63.4	0.0	-1.6	2.9	0.0%	-4.5%	4.8%
2 to 10	Romford	Maidstone	61.9	51.3	72.4	56.6	47.5	71.5	-5.3	-3.8	-0.9	-8.6%	-7.4%	-1.3%
2 to 11	Romford	Rochester	48.1	48.6	59.4	43.9	43.1	61.0	-4.3	-5.4	1.6	-8.8%	-11.2%	2.6%
2 to 12	Romford	Rainham	65.2	55.8	70.0	61.0	50.3	72.8	-4.1	-5.5	2.8	-6.3%	-9.9%	4.0%
3 to 7	Brentwood	Bexley	33.4	31.1	64.5	33.4	30.2	66.4	0.0	-0.8	1.8	0.1%	-2.7%	2.8%
3 to 8	Brentwood	Godstone	62.8	46.7	80.7	62.8	45.8	82.4	0.0	-1.0	1.7	0.0%	-2.0%	2.1%
3 to 9	Brentwood	Southfleet	33.5	28.5	70.5	33.5	27.3	73.5	0.0	-1.2	3.0	0.1%	-4.1%	4.3%
3 to 10	Brentwood	Maidstone	59.5	44.2	80.7	54.2	40.9	79.5	-5.3	-3.4	-1.2	-8.9%	-7.6%	-1.4%
3 to 11	Brentwood	Rochester	45.7	41.5	66.1	41.5	36.5	68.1	-4.2	-5.0	2.0	-9.3%	-12.0%	3.1%
3 to 12	Brentwood	Rainham	62.7	48.8	77.2	58.6	43.7	80.5	-4.1	-5.1	3.3	-6.5%	-10.4%	4.3%
4 to 7	Basildon	Bexley	40.0	35.4	67.8	39.9	34.3	69.9	-0.1	-1.1	2.0	-0.2%	-3.1%	3.0%
4 to 8	Basildon	Godstone	69.4	51.0	81.6	69.3	49.8	83.5	-0.1	-1.2	1.9	-0.1%	-2.4%	2.3%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
4 to 9	Basildon	Southfleet	40.0	32.8	73.2	33.8	27.0	75.1	-6.3	-5.8	1.8	-15.7%	-17.7%	2.5%
4 to 10	Basildon	Maidstone	66.0	48.5	81.7	48.0	39.0	73.7	-18.1	-9.5	-7.9	-27.4%	-19.6%	-9.7%
4 to 11	Basildon	Rochester	52.3	45.8	68.5	35.2	34.7	61.0	-17.0	-11.1	-7.5	-32.6%	-24.3%	-11.0%
4 to 12	Basildon	Rainham	69.3	53.1	78.4	52.4	41.9	75.2	-16.9	-11.2	-3.2	-24.4%	-21.1%	-4.1%
5 to 7	Tilbury Port	Bexley	28.6	27.9	61.4	28.6	26.6	64.5	0.0	-1.3	3.1	0.0%	-4.7%	5.0%
5 to 8	Tilbury Port	Godstone	58.0	43.6	79.8	58.0	42.2	82.5	0.0	-1.4	2.7	0.0%	-3.3%	3.4%
5 to 9	Tilbury Port	Southfleet	28.6	25.4	67.8	27.7	19.0	87.4	-0.9	-6.3	19.6	-3.2%	-24.9%	28.9%
5 to 10	Tilbury Port	Maidstone	54.6	41.1	79.8	41.9	31.1	80.9	-12.7	-10.0	1.1	-23.3%	-24.3%	1.4%
5 to 11	Tilbury Port	Rochester	40.9	38.4	63.9	29.2	26.7	65.5	-11.7	-11.6	1.6	-28.5%	-30.3%	2.5%
5 to 12	Tilbury Port	Rainham	57.9	45.6	76.1	46.4	33.9	82.1	-11.5	-11.7	5.9	-19.9%	-25.7%	7.8%
6 to 7	DP World	Bexley	32.4	31.4	61.9	32.4	30.2	64.4	0.0	-1.2	2.5	-0.1%	-3.9%	4.0%
6 to 8	DP World	Godstone	61.8	47.1	78.8	61.8	45.7	81.1	0.0	-1.3	2.3	0.0%	-2.9%	2.9%
6 to 9	DP World	Southfleet	32.4	28.8	67.5	29.0	21.0	82.9	-3.4	-7.8	15.4	-10.4%	-27.1%	22.8%
6 to 10	DP World	Maidstone	58.4	44.6	78.7	43.2	33.1	78.4	-15.2	-11.5	-0.3	-26.0%	-25.8%	-0.3%
6 to 11	DP World	Rochester	44.7	41.8	64.1	30.5	28.7	63.7	-14.1	-13.1	-0.3	-31.7%	-31.3%	-0.5%
6 to 12	DP World	Rainham	61.7	49.1	75.4	47.7	35.9	79.7	-14.0	-13.2	4.3	-22.7%	-26.9%	5.7%

**Table D.26 Route Based Journey Time Comparison North to South Movements (2030 Low Growth DM Vs DS) PM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
1 to 7	Cheshunt	Bexley	62.0	54.8	67.8	62.0	53.6	69.4	0.0	-1.3	1.6	0.0%	-2.3%	2.4%
1 to 8	Cheshunt	Godstone	91.6	69.4	79.2	91.6	67.7	81.2	0.0	-1.7	2.0	0.0%	-2.4%	2.5%
1 to 9	Cheshunt	Southfleet	60.9	52.3	69.8	62.3	49.3	75.8	1.4	-3.0	6.0	2.3%	-5.8%	8.7%
1 to 10	Cheshunt	Maidstone	88.3	70.5	75.1	83.0	66.1	75.3	-5.3	-4.4	0.1	-6.0%	-6.2%	0.2%
1 to 11	Cheshunt	Rochester	75.0	70.5	63.8	70.8	62.7	67.8	-4.1	-7.8	3.9	-5.5%	-11.0%	6.2%
1 to 12	Cheshunt	Rainham	91.5	82.7	66.5	87.4	74.3	70.6	-4.1	-8.3	4.1	-4.5%	-10.1%	6.2%
2 to 7	Romford	Bexley	35.7	46.5	46.1	35.7	42.9	49.8	0.0	-3.5	3.7	-0.1%	-7.5%	8.1%
2 to 8	Romford	Godstone	65.4	61.0	64.3	65.3	57.1	68.7	0.0	-3.9	4.4	0.0%	-6.4%	6.8%
2 to 9	Romford	Southfleet	34.6	43.9	47.2	36.0	38.7	55.8	1.4	-5.3	8.6	4.0%	-12.0%	18.2%
2 to 10	Romford	Maidstone	62.0	62.1	59.9	56.7	55.5	61.2	-5.4	-6.6	1.3	-8.6%	-10.6%	2.2%
2 to 11	Romford	Rochester	48.7	62.1	47.1	44.5	52.1	51.3	-4.2	-10.0	4.2	-8.6%	-16.1%	9.0%
2 to 12	Romford	Rainham	65.3	74.3	52.7	61.1	63.7	57.6	-4.2	-10.6	4.8	-6.4%	-14.2%	9.2%
3 to 7	Brentwood	Bexley	33.0	37.3	53.0	32.9	35.0	56.4	-0.1	-2.3	3.4	-0.3%	-6.2%	6.3%
3 to 8	Brentwood	Godstone	62.7	51.9	72.4	62.6	49.2	76.4	-0.1	-2.7	3.9	-0.1%	-5.3%	5.4%
3 to 9	Brentwood	Southfleet	31.9	34.8	55.0	33.2	30.7	64.9	1.3	-4.1	9.9	4.2%	-11.8%	18.1%
3 to 10	Brentwood	Maidstone	59.3	53.0	67.2	53.9	47.6	68.0	-5.4	-5.4	0.8	-9.1%	-10.2%	1.2%
3 to 11	Brentwood	Rochester	46.0	53.0	52.1	41.8	44.1	56.8	-4.2	-8.8	4.7	-9.2%	-16.7%	9.0%
3 to 12	Brentwood	Rainham	62.6	65.2	57.6	58.4	55.8	62.8	-4.2	-9.4	5.2	-6.7%	-14.4%	9.0%
4 to 7	Basildon	Bexley	36.8	41.5	53.2	36.8	39.3	56.2	0.0	-2.2	2.9	0.0%	-5.3%	5.5%
4 to 8	Basildon	Godstone	66.5	56.1	71.2	66.5	53.5	74.6	0.0	-2.6	3.4	0.0%	-4.6%	4.8%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
4 to 9	Basildon	Southfleet	35.7	39.0	55.0	33.8	28.6	70.9	-2.0	-10.4	15.9	-5.5%	-26.7%	28.9%
4 to 10	Basildon	Maidstone	63.2	57.2	66.3	48.0	43.7	65.9	-15.2	-13.5	-0.4	-24.1%	-23.6%	-0.6%
4 to 11	Basildon	Rochester	49.8	57.1	52.3	35.8	40.2	53.4	-14.0	-16.9	1.1	-28.1%	-29.6%	2.1%
4 to 12	Basildon	Rainham	66.4	69.3	57.5	52.4	51.9	60.6	-14.0	-17.5	3.2	-21.1%	-25.2%	5.5%
5 to 7	Tilbury Port	Bexley	28.3	32.6	52.1	28.3	29.1	58.4	0.0	-3.5	6.2	0.0%	-10.7%	11.9%
5 to 8	Tilbury Port	Godstone	58.0	47.2	73.8	58.0	43.3	80.4	0.0	-3.9	6.6	0.0%	-8.3%	9.0%
5 to 9	Tilbury Port	Southfleet	27.2	30.1	54.3	27.7	19.9	83.5	0.5	-10.2	29.2	1.9%	-33.8%	53.9%
5 to 10	Tilbury Port	Maidstone	54.6	48.3	67.9	41.9	35.0	71.8	-12.7	-13.2	3.9	-23.3%	-27.4%	5.7%
5 to 11	Tilbury Port	Rochester	41.3	48.2	51.4	29.8	31.6	56.6	-11.5	-16.6	5.2	-27.9%	-34.5%	10.1%
5 to 12	Tilbury Port	Rainham	57.9	60.4	57.5	46.4	43.2	64.4	-11.5	-17.2	6.9	-19.9%	-28.5%	12.0%
6 to 7	DP World	Bexley	32.1	36.2	53.3	32.1	33.4	57.6	0.0	-2.7	4.3	0.0%	-7.6%	8.1%
6 to 8	DP World	Godstone	61.8	50.7	73.1	61.8	47.6	77.9	0.0	-3.2	4.8	0.0%	-6.2%	6.6%
6 to 9	DP World	Southfleet	31.0	33.7	55.3	29.0	22.7	76.8	-2.0	-11.0	21.5	-6.3%	-32.6%	38.9%
6 to 10	DP World	Maidstone	58.4	51.8	67.7	43.2	37.8	68.6	-15.2	-14.0	1.0	-26.0%	-27.1%	1.5%
6 to 11	DP World	Rochester	45.1	51.8	52.3	31.1	34.3	54.3	-14.0	-17.4	2.1	-31.1%	-33.7%	3.9%
6 to 12	DP World	Rainham	61.7	64.0	57.9	47.7	46.0	62.2	-14.0	-18.0	4.4	-22.7%	-28.1%	7.6%

**Table D.27 Route Based Journey Time Comparison South to North Movements (2030 Low Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
7 to 1	Bexley	Cheshunt	61.6	54.3	68.1	61.6	51.8	71.4	0.0	-2.5	3.3	0.1%	-4.6%	4.9%
7 to 2	Bexley	Romford	34.7	42.1	49.5	34.7	37.4	55.7	0.0	-4.7	6.1	0.0%	-11.1%	12.4%
7 to 3	Bexley	Brentwood	33.2	37.7	52.8	33.2	34.1	58.3	0.0	-3.6	5.6	0.1%	-9.4%	10.5%
7 to 4	Bexley	Basildon	36.8	39.0	56.7	36.8	34.6	63.9	0.0	-4.4	7.2	-0.1%	-11.3%	12.7%
7 to 5	Bexley	Tilbury Port	28.6	33.5	51.2	28.6	29.9	57.3	0.0	-3.6	6.1	-0.1%	-10.7%	11.9%
7 to 6	Bexley	DP World	32.4	35.5	54.8	32.4	31.1	62.5	0.0	-4.4	7.7	-0.1%	-12.4%	14.1%
8 to 1	Godstone	Cheshunt	91.8	74.1	74.3	91.8	71.2	77.3	0.0	-2.9	3.1	0.1%	-3.9%	4.1%
8 to 2	Godstone	Romford	64.9	61.9	62.9	64.9	56.8	68.5	0.0	-5.0	5.6	0.0%	-8.1%	8.9%
8 to 3	Godstone	Brentwood	63.3	57.5	66.1	63.4	53.6	71.0	0.0	-3.9	4.9	0.1%	-6.9%	7.4%
8 to 4	Godstone	Basildon	67.0	58.8	68.4	67.0	54.0	74.4	0.0	-4.8	6.1	0.0%	-8.1%	8.9%
8 to 5	Godstone	Tilbury Port	58.7	53.3	66.1	58.7	49.3	71.4	0.0	-4.0	5.3	0.0%	-7.4%	8.0%
8 to 6	Godstone	DP World	62.6	55.3	67.9	62.6	50.5	74.3	0.0	-4.8	6.4	0.0%	-8.7%	9.5%
9 to 1	Southfleet	Cheshunt	60.7	54.3	67.1	60.8	49.9	73.0	0.0	-4.3	5.9	0.1%	-8.0%	8.8%
9 to 2	Southfleet	Romford	33.8	42.0	48.3	33.8	35.5	57.1	0.0	-6.5	8.8	0.0%	-15.5%	18.3%
9 to 3	Southfleet	Brentwood	32.3	37.7	51.4	32.3	32.3	60.1	0.1	-5.4	8.7	0.2%	-14.3%	16.9%
9 to 4	Southfleet	Basildon	36.0	39.0	55.4	35.8	28.0	76.8	-0.1	-11.0	21.4	-0.4%	-28.1%	38.7%
9 to 5	Southfleet	Tilbury Port	27.7	33.5	49.7	31.4	26.7	70.5	3.7	-6.7	20.9	13.4%	-20.2%	42.0%
9 to 6	Southfleet	DP World	31.5	35.4	53.4	31.4	24.5	77.0	-0.1	-11.0	23.6	-0.4%	-30.9%	44.2%
10 to 1	Maidstone	Cheshunt	88.3	73.6	72.0	83.3	64.5	77.5	-5.0	-9.0	5.5	-5.6%	-12.3%	7.6%
10 to 2	Maidstone	Romford	61.4	61.3	60.1	56.4	50.0	67.7	-5.0	-11.4	7.6	-8.2%	-18.5%	12.7%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
10 to 3	Maidstone	Brentwood	59.8	56.9	63.0	54.9	46.8	70.3	-5.0	-10.1	7.2	-8.3%	-17.7%	11.5%
10 to 4	Maidstone	Basildon	63.5	58.2	65.4	50.3	39.8	75.8	-13.2	-18.4	10.3	-20.8%	-31.6%	15.8%
10 to 5	Maidstone	Tilbury Port	55.2	52.7	62.9	45.9	38.6	71.4	-9.4	-14.2	8.6	-16.9%	-26.9%	13.6%
10 to 6	Maidstone	DP World	59.1	54.7	64.8	45.9	36.3	75.8	-13.2	-18.4	11.0	-22.3%	-33.6%	17.0%
11 to 1	Rochester	Cheshunt	75.3	76.4	59.1	70.3	61.4	68.7	-5.0	-15.1	9.6	-6.6%	-19.7%	16.3%
11 to 2	Rochester	Romford	48.4	64.2	45.2	43.3	46.8	55.6	-5.0	-17.4	10.3	-10.4%	-27.1%	22.8%
11 to 3	Rochester	Brentwood	46.8	59.8	47.0	41.8	43.7	57.5	-5.0	-16.1	10.5	-10.6%	-27.0%	22.3%
11 to 4	Rochester	Basildon	50.5	61.1	49.6	37.3	36.7	61.0	-13.2	-24.4	11.4	-26.2%	-40.0%	23.0%
11 to 5	Rochester	Tilbury Port	42.3	55.6	45.6	32.9	35.4	55.7	-9.4	-20.2	10.1	-22.2%	-36.3%	22.2%
11 to 6	Rochester	DP World	46.1	57.6	48.0	32.9	33.2	59.4	-13.2	-24.4	11.4	-28.7%	-42.4%	23.8%
12 to 1	Rainham	Cheshunt	91.7	87.6	62.8	87.7	72.3	72.7	-4.0	-15.3	9.9	-4.4%	-17.5%	15.8%
12 to 2	Rainham	Romford	64.8	75.4	51.6	60.7	57.8	63.1	-4.1	-17.6	11.5	-6.3%	-23.4%	22.2%
12 to 3	Rainham	Brentwood	63.3	71.0	53.5	59.2	54.6	65.0	-4.0	-16.3	11.6	-6.4%	-23.0%	21.6%
12 to 4	Rainham	Basildon	67.0	72.3	55.6	54.7	47.6	68.9	-12.3	-24.6	13.3	-18.3%	-34.1%	23.9%
12 to 5	Rainham	Tilbury Port	58.7	66.8	52.7	50.2	46.4	65.0	-8.4	-20.4	12.3	-14.4%	-30.6%	23.4%
12 to 6	Rainham	DP World	62.5	68.8	54.5	50.2	44.1	68.3	-12.3	-24.6	13.8	-19.6%	-35.8%	25.2%

**Table D.28 Route Based Journey Time Comparison South to North Movements (2030 Low Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
7 to 1	Bexley	Cheshunt	61.6	49.0	75.5	61.6	46.3	79.9	0.0	-2.7	4.4	0.1%	-5.5%	5.9%
7 to 2	Bexley	Romford	35.8	36.0	59.6	35.8	32.9	65.3	0.0	-3.1	5.6	0.0%	-8.7%	9.5%
7 to 3	Bexley	Brentwood	33.1	33.7	59.0	33.2	30.4	65.4	0.0	-3.3	6.4	0.1%	-9.7%	10.8%
7 to 4	Bexley	Basildon	36.8	36.9	59.9	36.8	33.1	66.7	0.0	-3.8	6.8	-0.1%	-10.3%	11.4%
7 to 5	Bexley	Tilbury Port	28.6	34.2	50.1	28.6	30.4	56.3	0.0	-3.8	6.1	0.0%	-11.0%	12.3%
7 to 6	Bexley	DP World	32.4	33.0	58.8	32.4	29.2	66.5	0.0	-3.9	7.7	-0.1%	-11.7%	13.1%
8 to 1	Godstone	Cheshunt	91.8	68.4	80.5	91.8	65.8	83.7	0.0	-2.6	3.2	0.1%	-3.8%	4.0%
8 to 2	Godstone	Romford	66.0	55.5	71.3	66.0	52.5	75.5	0.0	-3.1	4.2	0.0%	-5.5%	5.8%
8 to 3	Godstone	Brentwood	63.3	53.2	71.5	63.4	50.0	76.1	0.0	-3.2	4.6	0.1%	-6.0%	6.5%
8 to 4	Godstone	Basildon	67.0	56.4	71.3	67.0	52.7	76.4	0.0	-3.7	5.0	0.0%	-6.6%	7.1%
8 to 5	Godstone	Tilbury Port	58.8	53.7	65.7	58.8	50.0	70.5	0.0	-3.7	4.8	0.0%	-6.9%	7.4%
8 to 6	Godstone	DP World	62.6	52.5	71.5	62.6	48.7	77.0	0.0	-3.8	5.5	0.0%	-7.2%	7.7%
9 to 1	Southfleet	Cheshunt	60.2	49.9	72.4	60.8	45.4	80.3	0.6	-4.5	7.9	0.9%	-9.0%	10.9%
9 to 2	Southfleet	Romford	34.5	37.0	55.9	35.0	32.1	65.4	0.5	-4.9	9.6	1.5%	-13.4%	17.1%
9 to 3	Southfleet	Brentwood	31.8	34.6	55.0	32.3	29.6	65.6	0.6	-5.1	10.6	1.7%	-14.7%	19.2%
9 to 4	Southfleet	Basildon	35.5	37.9	56.2	35.8	27.4	78.6	0.4	-10.5	22.4	1.0%	-27.8%	39.9%
9 to 5	Southfleet	Tilbury Port	27.2	35.2	46.4	31.4	28.0	67.2	4.2	-7.1	20.8	15.5%	-20.3%	44.9%
9 to 6	Southfleet	DP World	31.0	34.0	54.8	31.4	23.4	80.4	0.4	-10.6	25.6	1.2%	-31.1%	46.8%
10 to 1	Maidstone	Cheshunt	88.3	64.5	82.1	83.3	58.5	85.4	-5.0	-6.0	3.3	-5.6%	-9.3%	4.1%
10 to 2	Maidstone	Romford	62.5	51.6	72.7	57.5	45.1	76.4	-5.0	-6.5	3.8	-8.0%	-12.5%	5.2%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
10 to 3	Maidstone	Brentwood	59.8	49.3	72.9	54.9	42.7	77.1	-5.0	-6.6	4.3	-8.3%	-13.3%	5.8%
10 to 4	Maidstone	Basildon	63.5	52.5	72.6	50.3	38.1	79.3	-13.2	-14.4	6.7	-20.8%	-27.4%	9.2%
10 to 5	Maidstone	Tilbury Port	55.2	49.8	66.6	45.9	38.8	71.0	-9.4	-11.0	4.4	-16.9%	-22.1%	6.7%
10 to 6	Maidstone	DP World	59.1	48.6	72.9	45.9	34.2	80.6	-13.2	-14.4	7.7	-22.3%	-29.7%	10.5%
11 to 1	Rochester	Cheshunt	74.5	64.7	69.1	70.3	54.4	77.5	-4.2	-10.3	8.4	-5.6%	-15.9%	12.2%
11 to 2	Rochester	Romford	48.7	51.7	56.5	44.5	41.0	65.0	-4.2	-10.7	8.6	-8.7%	-20.7%	15.2%
11 to 3	Rochester	Brentwood	46.0	49.4	55.9	41.8	38.6	65.1	-4.2	-10.8	9.2	-9.1%	-21.9%	16.5%
11 to 4	Rochester	Basildon	49.7	52.6	56.7	37.3	34.0	65.9	-12.4	-18.6	9.2	-25.0%	-35.4%	16.2%
11 to 5	Rochester	Tilbury Port	41.4	49.9	49.8	32.9	34.6	56.9	-8.6	-15.3	7.1	-20.7%	-30.6%	14.3%
11 to 6	Rochester	DP World	45.3	48.8	55.7	32.9	30.0	65.6	-12.4	-18.7	9.9	-27.4%	-38.4%	17.7%
12 to 1	Rainham	Cheshunt	91.7	71.9	76.6	87.7	61.5	85.6	-4.0	-10.4	9.0	-4.4%	-14.5%	11.8%
12 to 2	Rainham	Romford	65.9	59.0	67.1	61.8	48.1	77.2	-4.1	-10.9	10.1	-6.2%	-18.4%	15.0%
12 to 3	Rainham	Brentwood	63.3	56.6	67.0	59.2	45.6	77.9	-4.0	-11.0	10.8	-6.4%	-19.4%	16.1%
12 to 4	Rainham	Basildon	67.0	59.8	67.2	54.7	41.0	79.9	-12.3	-18.8	12.8	-18.3%	-31.4%	19.1%
12 to 5	Rainham	Tilbury Port	58.7	57.1	61.6	50.2	41.7	72.3	-8.4	-15.4	10.6	-14.4%	-27.0%	17.3%
12 to 6	Rainham	DP World	62.5	56.0	67.0	50.2	37.1	81.2	-12.3	-18.8	14.2	-19.6%	-33.7%	21.2%



**Table D.29 Route Based Journey Time Comparison South to North Movements (2030 Low Growth DM Vs DS) PM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
7 to 1	Bexley	Cheshunt	61.5	56.1	65.8	61.5	53.2	69.4	0.1	-2.9	3.7	0.1%	-5.2%	5.6%
7 to 2	Bexley	Romford	34.7	41.3	50.5	34.7	38.2	54.5	0.1	-3.0	4.0	0.2%	-7.3%	8.0%
7 to 3	Bexley	Brentwood	33.1	36.3	54.8	33.2	33.4	59.6	0.0	-2.9	4.9	0.1%	-8.0%	8.9%
7 to 4	Bexley	Basildon	36.8	43.6	50.7	36.8	38.8	56.9	0.0	-4.8	6.3	0.0%	-11.0%	12.4%
7 to 5	Bexley	Tilbury Port	28.6	34.1	50.2	28.6	28.5	60.1	0.0	-5.6	9.9	0.0%	-16.4%	19.7%
7 to 6	Bexley	DP World	32.4	38.0	51.1	32.4	33.2	58.5	0.0	-4.8	7.4	0.0%	-12.6%	14.4%
8 to 1	Godstone	Cheshunt	91.1	77.2	70.8	91.2	74.5	73.4	0.1	-2.7	2.6	0.1%	-3.5%	3.6%
8 to 2	Godstone	Romford	64.4	62.4	61.9	64.4	59.6	64.8	0.1	-2.8	2.9	0.1%	-4.4%	4.7%
8 to 3	Godstone	Brentwood	62.8	57.4	65.6	62.8	54.8	68.9	0.0	-2.7	3.3	0.1%	-4.7%	5.0%
8 to 4	Godstone	Basildon	66.5	64.8	61.6	66.5	60.2	66.3	0.0	-4.6	4.7	0.0%	-7.1%	7.6%
8 to 5	Godstone	Tilbury Port	58.2	55.3	63.2	58.2	49.9	70.0	0.0	-5.4	6.8	0.0%	-9.7%	10.8%
8 to 6	Godstone	DP World	62.0	59.2	62.9	62.0	54.6	68.2	0.0	-4.6	5.2	0.0%	-7.7%	8.3%
9 to 1	Southfleet	Cheshunt	60.6	54.7	66.5	60.7	50.9	71.5	0.1	-3.8	5.1	0.1%	-7.0%	7.6%
9 to 2	Southfleet	Romford	33.8	39.9	50.9	33.9	36.0	56.5	0.1	-3.9	5.6	0.2%	-9.8%	11.1%
9 to 3	Southfleet	Brentwood	32.3	34.9	55.4	32.3	31.1	62.3	0.0	-3.8	6.9	0.2%	-11.0%	12.5%
9 to 4	Southfleet	Basildon	36.0	42.3	51.1	35.8	31.3	68.8	-0.1	-11.0	17.7	-0.4%	-26.0%	34.7%
9 to 5	Southfleet	Tilbury Port	27.7	32.8	50.7	31.4	24.6	76.6	3.7	-8.2	25.9	13.4%	-25.0%	51.2%
9 to 6	Southfleet	DP World	31.5	36.7	51.6	31.4	25.7	73.3	-0.1	-11.0	21.8	-0.4%	-29.9%	42.2%
10 to 1	Maidstone	Cheshunt	88.2	71.5	74.0	83.2	65.9	75.8	-4.9	-5.6	1.8	-5.6%	-7.8%	2.4%
10 to 2	Maidstone	Romford	61.4	56.7	65.0	56.4	50.9	66.4	-5.0	-5.7	1.4	-8.1%	-10.1%	2.2%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
10 to 3	Maidstone	Brentwood	59.8	51.7	69.4	54.9	46.1	71.4	-5.0	-5.6	2.0	-8.3%	-10.8%	2.8%
10 to 4	Maidstone	Basildon	63.5	59.0	64.6	50.3	43.1	70.0	-13.2	-15.9	5.5	-20.8%	-26.9%	8.4%
10 to 5	Maidstone	Tilbury Port	55.2	49.5	66.9	45.9	36.4	75.6	-9.4	-13.1	8.7	-16.9%	-26.4%	12.9%
10 to 6	Maidstone	DP World	59.1	53.4	66.3	45.9	37.5	73.3	-13.2	-15.9	7.0	-22.3%	-29.7%	10.5%
11 to 1	Rochester	Cheshunt	74.4	75.1	59.4	70.2	63.6	66.2	-4.2	-11.5	6.8	-5.6%	-15.3%	11.5%
11 to 2	Rochester	Romford	47.6	60.3	47.3	43.4	48.7	53.5	-4.2	-11.6	6.2	-8.8%	-19.3%	13.0%
11 to 3	Rochester	Brentwood	46.0	55.4	49.9	41.8	43.9	57.2	-4.2	-11.5	7.4	-9.1%	-20.8%	14.8%
11 to 4	Rochester	Basildon	49.7	62.7	47.6	37.3	40.9	54.8	-12.4	-21.8	7.2	-25.0%	-34.8%	15.1%
11 to 5	Rochester	Tilbury Port	41.4	53.2	46.7	32.9	34.2	57.7	-8.6	-19.0	11.0	-20.7%	-35.8%	23.5%
11 to 6	Rochester	DP World	45.3	57.1	47.6	32.9	35.3	55.9	-12.4	-21.8	8.3	-27.4%	-38.2%	17.5%
12 to 1	Rainham	Cheshunt	91.6	82.0	67.0	87.6	70.1	75.0	-4.0	-11.9	8.0	-4.4%	-14.6%	11.9%
12 to 2	Rainham	Romford	64.8	67.2	57.8	60.8	55.1	66.1	-4.0	-12.1	8.3	-6.2%	-18.0%	14.3%
12 to 3	Rainham	Brentwood	63.3	62.3	60.9	59.2	50.3	70.6	-4.0	-12.0	9.7	-6.4%	-19.2%	15.9%
12 to 4	Rainham	Basildon	67.0	69.6	57.7	54.7	47.3	69.3	-12.3	-22.3	11.6	-18.3%	-32.0%	20.1%
12 to 5	Rainham	Tilbury Port	58.7	60.1	58.6	50.2	40.6	74.2	-8.4	-19.5	15.6	-14.4%	-32.4%	26.7%
12 to 6	Rainham	DP World	62.5	64.0	58.6	50.2	41.7	72.2	-12.3	-22.3	13.6	-19.6%	-34.8%	23.2%

## **D.3 LTAM 2037 Low Growth – Outputs to Economic Assessment**

D.3.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2037 low growth forecast.

### **Matrix Total Comparison**

D.3.2 Table D.30 and Table D.31 show that the VDMs have converged to the desired criteria.

D.3.3 Table D.32 and Table D.33 provide a comparison of the input reference matrices with the VDM output matrices. The SATURN format comparisons are provided for all movements and relevant movements.

**Table D.30 Convergence and Stability Statistics (Low 2037 DM)**

Iteration	Main	Full Model Rel	Subset Area Rel	Cost stability			Flow stability				Totals
				RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%
1	10.55%	16.00%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%	75,316,428
2	5.05%	7.05%	0.006	0.283	0.505	99.59%	0.110	0.024	3.304	34.67%	75,649,593
3	2.48%	3.34%	0.002	0.079	0.134	99.99%	0.044	0.012	1.649	66.27%	75,815,272
4	1.23%	1.63%	0.001	0.036	0.080	100.00%	0.021	0.006	0.824	92.37%	75,897,781
5	0.61%	0.82%	0.001	0.026	0.078	100.00%	0.011	0.003	0.412	98.77%	75,938,976
6	0.31%	0.42%	0.000	0.014	0.049	99.99%	0.005	0.001	0.206	99.72%	75,959,515
7	0.16%	0.22%	0.000	0.011	0.045	99.99%	0.003	0.001	0.104	99.92%	75,969,802
8	0.08%	0.14%	0.000	0.010	0.035	100.00%	0.001	0.000	0.054	99.99%	75,974,867
9	0.04%	0.09%	0.000	0.009	0.033	100.00%	0.001	0.000	0.031	100.00%	75,977,393

*\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report*

**Table D.31 Convergence and Stability Statistics (Low 2037 DS)**

Iteration	% GAP		Cost stability				Flow stability				Totals
	Full Model	Subset Area	RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%	Trips*
1	10.63%	16.94%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%	75,316,428
2	5.07%	7.32%	0.008	0.369	0.608	99.37%	0.147	0.025	3.305	30.63%	75,650,935
3	2.49%	3.45%	0.002	0.087	0.139	99.99%	0.051	0.012	1.649	62.45%	75,816,835
4	1.23%	1.68%	0.001	0.029	0.057	100.00%	0.023	0.006	0.824	89.52%	75,899,441
5	0.61%	0.84%	0.000	0.014	0.040	100.00%	0.011	0.003	0.412	98.73%	75,940,638
6	0.31%	0.42%	0.000	0.009	0.032	100.00%	0.006	0.001	0.206	99.72%	75,961,160
7	0.16%	0.24%	0.000	0.010	0.046	99.99%	0.003	0.001	0.104	99.93%	75,971,386
8	0.08%	0.13%	0.000	0.008	0.044	99.99%	0.002	0.000	0.054	99.98%	75,976,570
9	0.04%	0.09%	0.000	0.007	0.031	100.00%	0.001	0.000	0.028	99.99%	75,979,099

*\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report*

**Table D.32 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices  
(Low 2037 Reference DM and DS Highway Trips in PCUs)**

Segment	Matrix Type	Time Period	Reference Matrix (Low 2037)	VDM Output Matrix (Low 2037 DM)			VDM Output Matrix (Low 2037 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
HBEB	24Hr PA	N/A	2,688,946	2,691,293	2,347	0.1%	2,691,338	2,392	0.1%
HBW L	24Hr PA	N/A	2,324,558	2,326,550	1,992	0.1%	2,326,572	2,014	0.1%
HBW M	24Hr PA	N/A	4,105,211	4,105,683	473	0.0%	4,105,759	548	0.0%
HBW H	24Hr PA	N/A	3,211,574	3,206,948	-4,626	-0.1%	3,207,054	-4,520	-0.1%
HBO L	24Hr PA	N/A	6,824,076	6,976,079	152,003	2.2%	6,976,315	152,239	2.2%
HBO M	24Hr PA	N/A	6,128,081	6,199,530	71,449	1.2%	6,199,742	71,660	1.2%
HBO H	24Hr PA	N/A	4,417,126	4,442,398	25,272	0.6%	4,442,606	25,480	0.6%
NHBE B	By Time Period OD	AM	90,713	90,918	205	0.2%	90,973	260	0.3%
		IP	117,486	117,353	-132	-0.1%	117,356	-130	-0.1%
		PM	130,987	129,779	-1,208	-0.9%	129,788	-1,199	-0.9%
		OP	33,088	33,376	288	0.9%	33,365	277	0.8%
NHBO L	By Time Period OD	AM	133,735	137,119	3,384	2.5%	137,212	3,477	2.6%
		IP	354,972	362,339	7,367	2.1%	362,337	7,366	2.1%
		PM	280,420	284,716	4,296	1.5%	284,757	4,337	1.5%
		OP	78,140	80,505	2,365	3.0%	80,488	2,348	3.0%
NHBO M	By Time Period OD	AM	142,306	143,857	1,551	1.1%	143,938	1,632	1.1%
		IP	283,968	287,302	3,333	1.2%	287,332	3,363	1.2%
		PM	281,979	283,257	1,278	0.5%	283,269	1,290	0.5%
		OP	69,905	71,233	1,328	1.9%	71,211	1,306	1.9%

Segment	Matrix Type	Time Period	Reference Matrix (Low 2037)	VDM Output Matrix (Low 2037 DM)			VDM Output Matrix (Low 2037 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
NHBO H	By Time Period OD	AM	114,741	115,093	352	0.3%	115,146	406	0.4%
		IP	194,609	195,771	1,163	0.6%	195,784	1,175	0.6%
		PM	218,726	218,084	-641	-0.3%	218,157	-569	-0.3%
		OP	51,389	52,153	764	1.5%	52,130	741	1.4%
LGV	By Time Period OD	AM	880,167	880,167	0	0.0%	880,167	0	0.0%
		IP	760,062	760,062	0	0.0%	760,062	0	0.0%
		PM	635,207	635,207	0	0.0%	635,207	0	0.0%
		OP	306,415	306,415	0	0.0%	306,415	0	0.0%
HGV	By Time Period OD	AM	122,878	122,878	0	0.0%	122,878	0	0.0%
		IP	138,054	138,054	0	0.0%	138,054	0	0.0%
		PM	79,650	79,650	0	0.0%	79,650	0	0.0%
		OP	54,743	54,743	0	0.0%	54,743	0	0.0%
Port Trips EB	By Time Period OD	AM	4,387	4,387	0	0.0%	4,387	0	0.0%
		IP	3,045	3,045	0	0.0%	3,045	0	0.0%
		PM	3,821	3,821	0	0.0%	3,821	0	0.0%
		OP	1,174	1,174	0	0.0%	1,174	0	0.0%
Port Trips O LI	By Time Period OD	AM	2,535	2,535	0	0.0%	2,535	0	0.0%
		IP	3,119	3,119	0	0.0%	3,119	0	0.0%
		PM	3,097	3,097	0	0.0%	3,097	0	0.0%
		OP	1,010	1,010	0	0.0%	1,010	0	0.0%

Segment	Matrix Type	Time Period	Reference Matrix (Low 2037)	VDM Output Matrix (Low 2037 DM)		VDM Output Matrix (Low 2037 DS)			
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Port Trips O MI	By Time Period OD	AM	2,954	2,954	0	0.0%	2,954	0	0.0%
		IP	3,293	3,293	0	0.0%	3,293	0	0.0%
		PM	3,632	3,632	0	0.0%	3,632	0	0.0%
		OP	1,120	1,120	0	0.0%	1,120	0	0.0%
Port Trips O HI	By Time Period OD	AM	4,190	4,190	0	0.0%	4,190	0	0.0%
		IP	3,503	3,503	0	0.0%	3,503	0	0.0%
		PM	4,637	4,637	0	0.0%	4,637	0	0.0%
		OP	1,340	1,340	0	0.0%	1,340	0	0.0%



**Table D.33 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices  
(Low 2037 Reference DM and DS Hourly PCUs)**

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (Low 2037)	VDM Output Matrix (Low 2037 DM)			VDM Output Matrix (Low 2037 DS)			Reference Matrix (Low 2037)	VDM Output Matrix (Low 2037 DM)			VDM Output Matrix (Low 2037 DS)		
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Employers Business	AM	467,274	468,558	1,284	0.3%	468,670	1,396	0.3%	39,149	40,069	920	2.3%	40,192	1,042	2.7%
	IP	407,437	407,291	-146	0.0%	407,286	-151	0.0%	27,204	27,338	134	0.5%	27,345	140	0.5%
	PM	561,810	559,636	-2,174	-0.4%	559,684	-2,126	-0.4%	39,820	39,816	-3	0.0%	39,877	57	0.1%
	OP	160,589	161,150	561	0.3%	161,131	542	0.3%	10,764	11,286	522	4.8%	11,273	508	4.7%
Car Commute Low Income	AM	430,072	427,643	-2,429	-0.6%	427,622	-2,450	-0.6%	31,751	32,260	509	1.6%	32,235	484	1.5%
	IP	196,027	197,034	1,007	0.5%	197,049	1,021	0.5%	17,989	18,322	333	1.9%	18,339	349	1.9%
	PM	492,351	491,857	-494	-0.1%	491,869	-482	-0.1%	33,373	34,006	633	1.9%	34,019	646	1.9%
	OP	78,346	78,808	462	0.6%	78,809	463	0.6%	6,574	6,761	188	2.9%	6,762	189	2.9%
Car Commute Medium Income	AM	866,630	863,731	-2,899	-0.3%	863,818	-2,813	-0.3%	66,688	67,080	392	0.6%	67,168	480	0.7%
	IP	300,760	301,552	793	0.3%	301,547	788	0.3%	27,633	27,874	242	0.9%	27,872	239	0.9%
	PM	942,623	942,031	-592	-0.1%	942,069	-555	-0.1%	66,222	66,643	420	0.6%	66,682	459	0.7%
	OP	120,105	120,533	428	0.4%	120,524	418	0.3%	10,080	10,275	195	1.9%	10,266	186	1.8%
Car Commute High Income	AM	736,350	734,484	-1,865	-0.3%	734,440	-1,909	-0.3%	63,992	63,840	-152	-0.2%	63,800	-192	-0.3%
	IP	214,323	214,151	-172	-0.1%	214,156	-167	-0.1%	23,566	23,577	11	0.0%	23,585	19	0.1%
	PM	762,801	761,315	-1,486	-0.2%	761,474	-1,327	-0.2%	65,120	64,689	-431	-0.7%	64,853	-267	-0.4%
	OP	85,529	85,563	34	0.0%	85,558	29	0.0%	8,734	8,828	93	1.1%	8,823	89	1.0%

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (Low 2037)	VDM Output Matrix (Low 2037 DM)		VDM Output Matrix (Low 2037 DS)			Reference Matrix (Low 2037)	VDM Output Matrix (Low 2037 DM)		VDM Output Matrix (Low 2037 DS)				
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Other Low Income	AM	725,257	743,281	18,025	2.5%	743,531	18,275	2.5%	77,892	80,614	2,722	3.5%	80,918	3,026	3.9%
	IP	1,285,157	1,311,469	26,312	2.0%	1,311,430	26,273	2.0%	108,337	111,806	3,468	3.2%	111,829	3,492	3.2%
	PM	1,258,277	1,281,730	23,453	1.9%	1,281,874	23,597	1.9%	116,546	118,354	1,808	1.6%	118,564	2,018	1.7%
	OP	401,922	412,404	10,482	2.6%	412,360	10,438	2.6%	34,599	36,948	2,350	6.8%	36,917	2,319	6.7%
Car Other Medium Income	AM	774,619	783,396	8,776	1.1%	783,579	8,959	1.2%	86,203	87,045	842	1.0%	87,283	1,080	1.3%
	IP	1,028,752	1,040,211	11,458	1.1%	1,040,263	11,510	1.1%	100,736	102,253	1,517	1.5%	102,364	1,629	1.6%
	PM	1,268,858	1,278,609	9,751	0.8%	1,278,665	9,808	0.8%	129,821	129,461	-360	-0.3%	129,593	-227	-0.2%
	OP	359,924	365,473	5,549	1.5%	365,425	5,501	1.5%	34,963	36,524	1,561	4.5%	36,490	1,527	4.4%
Car Other High Income	AM	622,636	625,190	2,554	0.4%	625,317	2,681	0.4%	81,980	81,627	-352	-0.4%	81,817	-162	-0.2%
	IP	694,939	698,749	3,810	0.5%	698,738	3,799	0.5%	82,433	82,849	416	0.5%	82,902	469	0.6%
	PM	967,829	968,687	858	0.1%	968,937	1,108	0.1%	116,685	114,915	-1,770	-1.5%	115,245	-1,440	-1.2%
	OP	260,770	263,534	2,764	1.1%	263,484	2,714	1.0%	30,636	31,753	1,117	3.6%	31,716	1,080	3.5%
Car Total	AM	4,622,837	4,646,283	23,446	0.5%	4,646,976	24,140	0.5%	447,655	452,536	4,881	1.1%	453,414	5,759	1.3%
	IP	4,127,395	4,170,456	43,061	1.0%	4,170,468	43,073	1.0%	387,898	394,019	6,121	1.6%	394,235	6,338	1.6%
	PM	6,254,548	6,283,866	29,318	0.5%	6,284,571	30,023	0.5%	567,587	567,884	297	0.1%	568,833	1,246	0.2%
	OP	1,467,186	1,487,466	20,280	1.4%	1,487,290	20,105	1.4%	136,350	142,375	6,025	4.4%	142,246	5,896	4.3%

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (Low 2037)	VDM Output Matrix (Low 2037 DM)		VDM Output Matrix (Low 2037 DS)			Reference Matrix (Low 2037)	VDM Output Matrix (Low 2037 DM)		VDM Output Matrix (Low 2037 DS)				
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
LGV	AM	880,167	880,167	0	0.0%	880,167	0	0.0%	109,690	109,690	0	0.0%	109,690	0	0.0%
	IP	760,062	760,062	0	0.0%	760,062	0	0.0%	82,906	82,906	0	0.0%	82,906	0	0.0%
	PM	635,207	635,207	0	0.0%	635,207	0	0.0%	84,531	84,531	0	0.0%	84,531	0	0.0%
	OP	306,415	306,415	0	0.0%	306,415	0	0.0%	32,872	32,872	0	0.0%	32,872	0	0.0%
HGV	AM	122,878	122,878	0	0.0%	122,878	0	0.0%	50,249	50,249	0	0.0%	50,249	0	0.0%
	IP	138,054	138,054	0	0.0%	138,054	0	0.0%	55,294	55,294	0	0.0%	55,294	0	0.0%
	PM	79,650	79,650	0	0.0%	79,650	0	0.0%	31,737	31,737	0	0.0%	31,737	0	0.0%
	OP	54,743	54,743	0	0.0%	54,743	0	0.0%	21,678	21,678	0	0.0%	21,678	0	0.0%

## Highway Assignment Model (HAM) Convergence Statistics

D.3.4 Table D.34 to Table D.36 provide the highway assignment model convergence statistics for the 2037 low growth DM forecasts. Table D.37 to Table D.39 provide the highway assignment model convergence statistics for the 2037 low growth DS forecasts.

**Table D.34 HAM Convergence Statistics – 2037 Low Growth DM AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
63	0.0033	0.0054	98.9	99.5
64	0.0040	0.0054	98.8	99.5
65	0.0041	0.0058	98.7	99.4
66	0.0043	0.0048	98.6	99.5

**Table D.35 HAM Convergence Statistics – 2037 Low Growth DM Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
36	0.0028	0.0045	99.1	99.7
37	0.0032	0.0042	98.8	99.6
38	0.0036	0.0040	98.9	99.7
39	0.0031	0.0035	98.7	99.6

**Table D.36 HAM Convergence Statistics – 2037 Low Growth DM PM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
67	0.0043	0.0050	98.7	99.4
68	0.0047	0.0050	98.7	99.4
69	0.0043	0.0051	98.6	99.4
70	0.0036	0.0049	98.8	99.3

**Table D.37 HAM Convergence Statistics – 2037 Low Growth DS AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
62	0.0050	0.0052	99.0	99.5
63	0.0035	0.0045	98.6	99.4
64	0.0031	0.0065	99.0	99.5
65	0.0030	0.0045	98.5	99.4

**Table D.38 HAM Convergence Statistics – 2037 Low Growth DS Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
29	0.0043	0.0047	98.7	99.6
30	0.0040	0.0049	98.7	99.6
31	0.0028	0.0032	98.7	99.6
32	0.0033	0.0047	99.1	99.7

**Table D.39 HAM Convergence Statistics – 2037 Low Growth DS PM Peak**

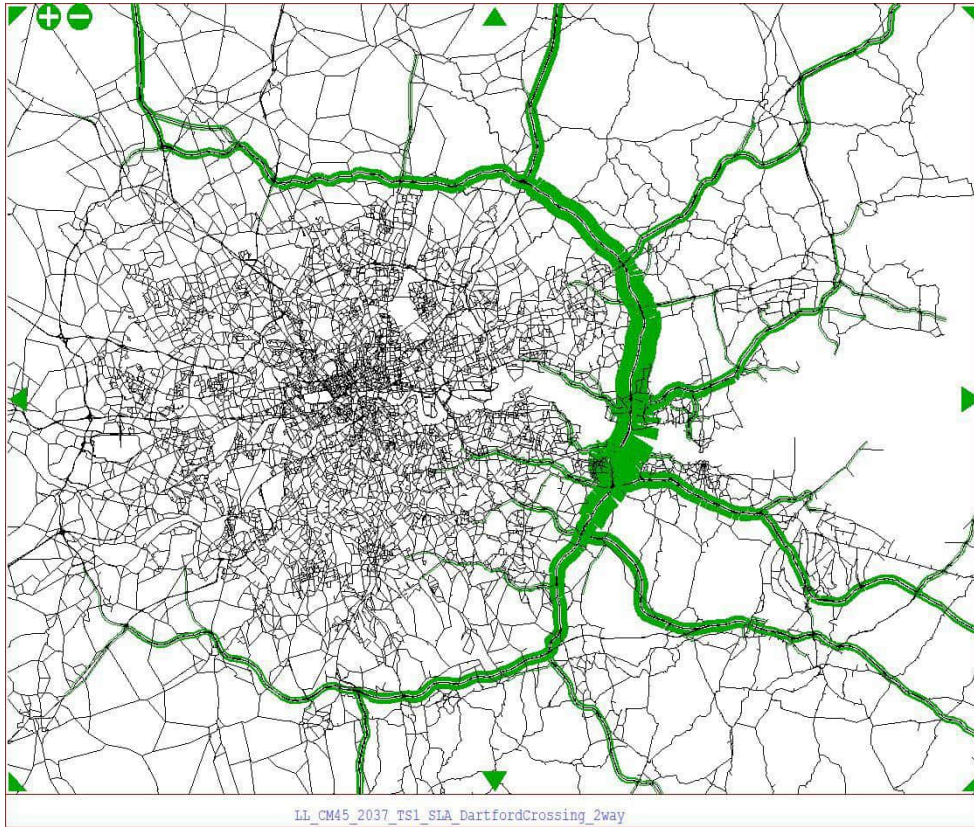
Iteration	Delta (%)	%GAP	%Flows	%Delays
68	0.0036	0.0046	98.7	99.3
69	0.0034	0.0049	99.0	99.4
70	0.0043	0.0046	98.8	99.4
71	0.0029	0.0048	98.8	99.4

D.3.5 These tables demonstrate that the LTAM has achieved the TAG convergence targets in all time periods for this scenario and year.

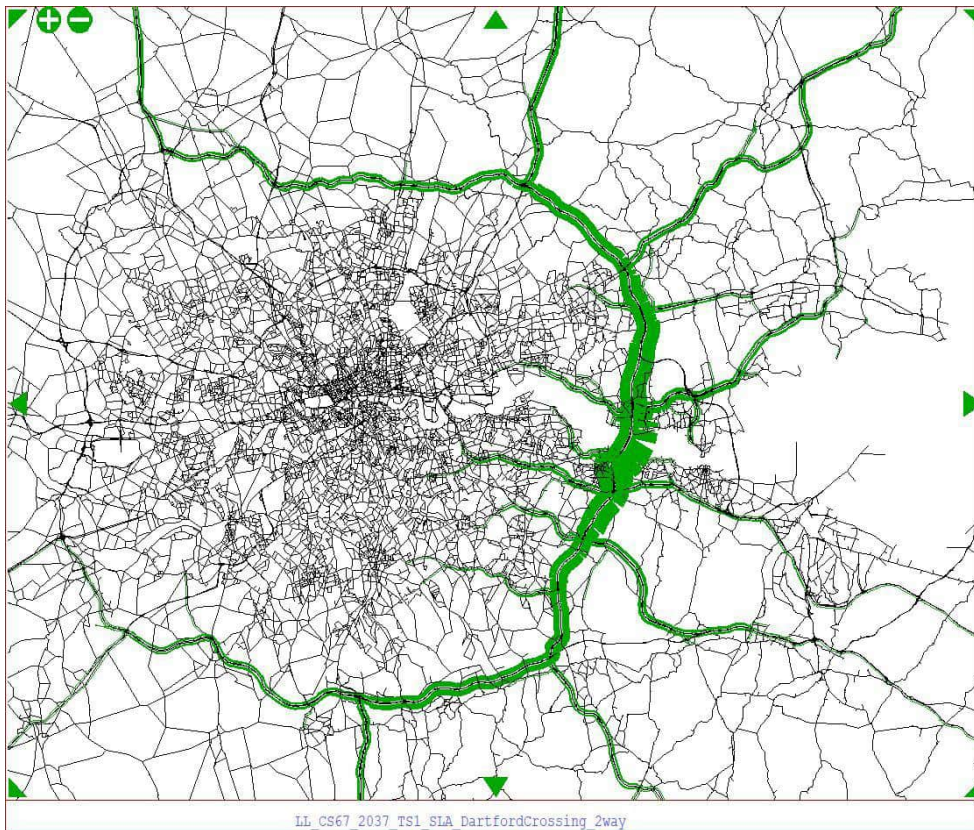
### **Movement Patterns Using the Crossings**

D.3.6 Plate D.13 to Plate D.21 provide select link analysis of movements using the Dartford and Lower Thames Crossing for the Do Minimum and Do Something scenarios for each of the model time periods. These diagrams show the pattern of movements using each of the crossings in each of the time periods. Table D.40 to Table D.42 provide a summary of the main corridors using each of the crossings and a comparison between the DM and DS scenarios for each time period.

### Plate D.13 Select Link Analysis – Dartford Crossing DM 2037 Low AM Peak



### Plate D.14 Select Link Analysis – Dartford Crossing DS 2037 Low AM Peak



**Plate D.15 Select Link Analysis – Lower Thames Crossing DS 2037 Low AM Peak**



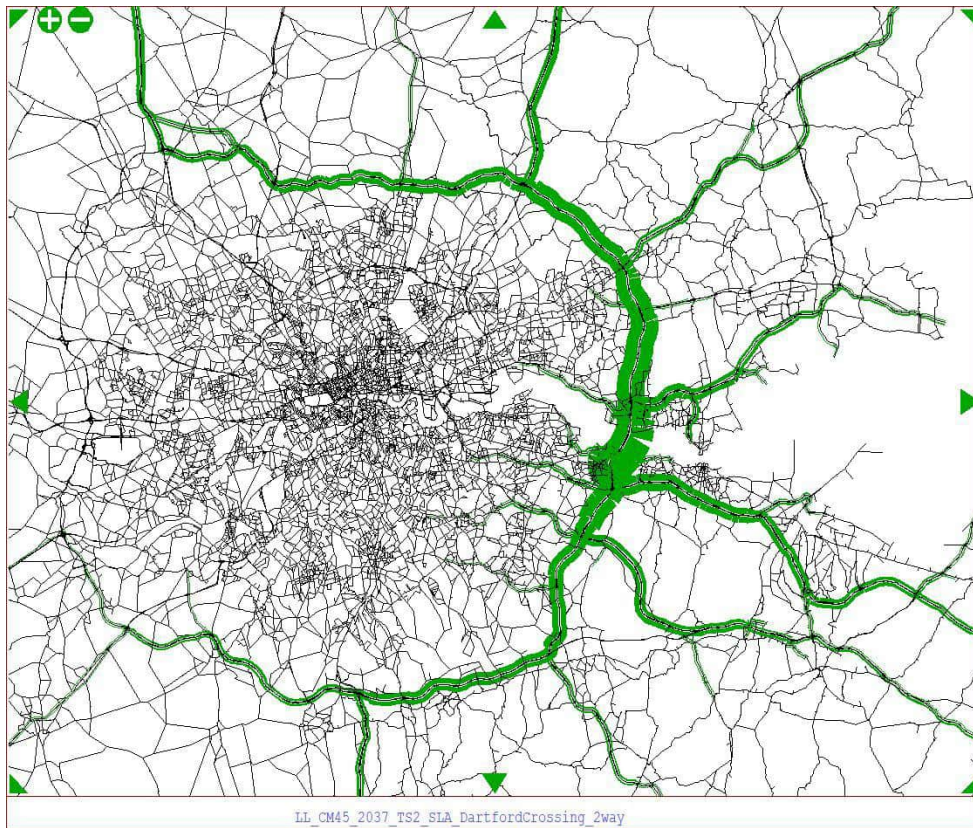
**Table D.40 Select Link Analysis – Summary of Primary Corridors of Movement 2037  
Low AM Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,629	17%	3,274	24%	645	25%
	Local (Outside M25)	1,948	13%	1,814	13%	-134	-7%
	M25 South (J2-3)	7,439	48%	7,218	53%	-221	-3%
	A2/M2 to/from Kent	3,465	22%	1,294	10%	-2171	-63%
Select Link	Dartford Crossing	<b>15,481</b>	<b>100%</b>	<b>13,600</b>	<b>100%</b>	<b>-1881</b>	<b>-12%</b>
North of River	London North	2,242	14%	2,800	21%	557	25%
	Local Traffic	1,489	10%	1,386	10%	-103	-7%
	M25 North (J30-29)	8,569	55%	7,010	52%	-1559	-18%
	A13 to/from Essex	3,180	21%	2,404	18%	-776	-24%
South of River	Local Traffic	n/a	n/a	746	9%	n/a	n/a
	A2 West of LTC	n/a	n/a	541	7%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	6,950	84%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>8,237</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	729	9%	n/a	n/a
	A13 West of LTC	n/a	n/a	67	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	3,413	41%	n/a	n/a
	M25 North of LTC	n/a	n/a	4,028	49%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link



### Plate D.16 Select Link Analysis – Dartford Crossing DM 2037 Low Inter Peak



### Plate D.17 Select Link Analysis – Dartford Crossing DS 2037 Low Inter Peak



**Plate D.18 Select Link Analysis – Lower Thames Crossing DS 2037 Low Inter Peak**



**Table D.41 Select Link Analysis – Summary of Primary Corridors of Movement 2037  
Low Inter Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,210	16%	2,542	23%	331	15%
	Local (Outside M25)	1,386	10%	1,272	11%	-114	-8%
	M25 South (J2-3)	6,688	48%	6,040	55%	-647	-10%
	A2/M2 to/from Kent	3,755	27%	1,212	11%	-2543	-68%
Select Link	Dartford Crossing	<b>14,038</b>	<b>100%</b>	<b>11,066</b>	<b>100%</b>	<b>-2972</b>	<b>-21%</b>
North of River	London North	1,791	13%	2,134	19%	343	19%
	Local Traffic	1,484	11%	1,502	14%	18	1%
	M25 North (J30-29)	7,609	54%	5,188	47%	-2421	-32%
	A13 to/from Essex	3,155	22%	2,241	20%	-913	-29%
South of River	Local Traffic	n/a	n/a	698	11%	n/a	n/a
	A2 West of LTC	n/a	n/a	405	6%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	5,504	83%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>6,608</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	542	8%	n/a	n/a
	A13 West of LTC	n/a	n/a	24	0%	n/a	n/a
	A13 East of LTC	n/a	n/a	2,613	40%	n/a	n/a
	M25 North of LTC	n/a	n/a	3,430	52%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

### Plate D.19 Select Link Analysis – Dartford Crossing DM 2037 Low PM Peak



### Plate D.20 Select Link Analysis – Dartford Crossing DS 2037 Low PM Peak



**Plate D.21 Select Link Analysis – Lower Thames Crossing DS 2037 Low PM Peak**



**Table D.42 Select Link Analysis – Summary of Primary Corridors of Movement 2037  
Low PM Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,456	17%	2,942	24%	487	20%
	Local (Outside M25)	1,719	12%	1,522	12%	-197	-11%
	M25 South (J2-3)	6,808	46%	6,300	51%	-507	-7%
	A2/M2 to/from Kent	3,823	26%	1,608	13%	-2215	-58%
Select Link	Dartford Crossing	<b>14,806</b>	<b>100%</b>	<b>12,373</b>	<b>100%</b>	<b>-2433</b>	<b>-16%</b>
North of River	London North	2,449	17%	3,017	24%	567	23%
	Local Traffic	1,479	10%	1,500	12%	21	1%
	M25 North (J30-29)	7,654	52%	5,600	45%	-2054	-27%
	A13 to/from Essex	3,224	22%	2,256	18%	-968	-30%
South of River	Local Traffic	n/a	n/a	1,076	13%	n/a	n/a
	A2 West of LTC	n/a	n/a	697	8%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	6,446	78%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>8,219</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	757	9%	n/a	n/a
	A13 West of LTC	n/a	n/a	44	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	3,859	47%	n/a	n/a
	M25 North of LTC	n/a	n/a	3,558	43%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

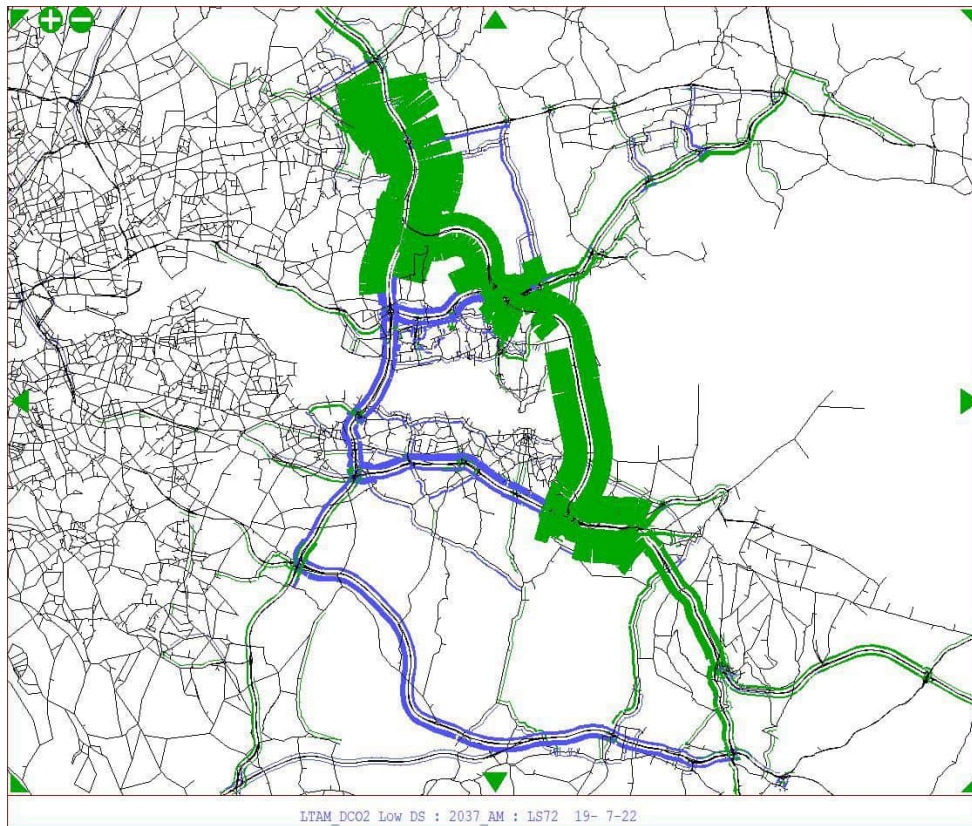
<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

### DM Vs DM Vs DS Flow Comparisons

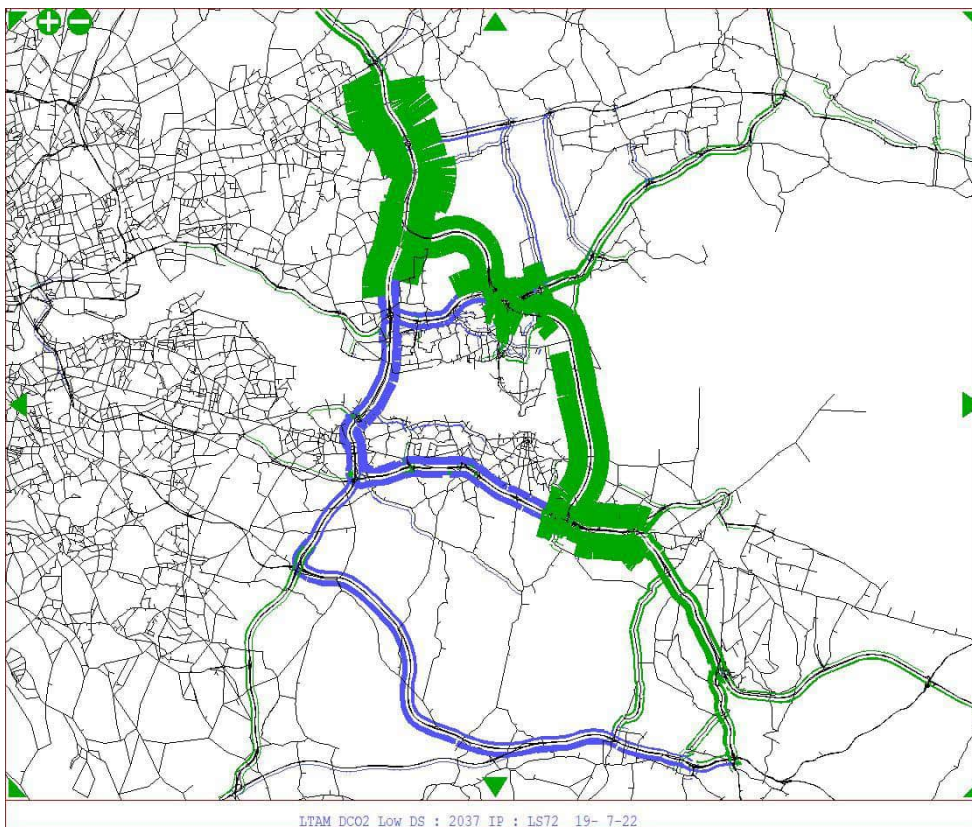
D.3.7 The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Plate D.22 to Plate D.24 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCUs per hour have been excluded from the colouring.

D.3.8 Table D.43 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link approaching the TMC. Table D.44 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link after the TMC.

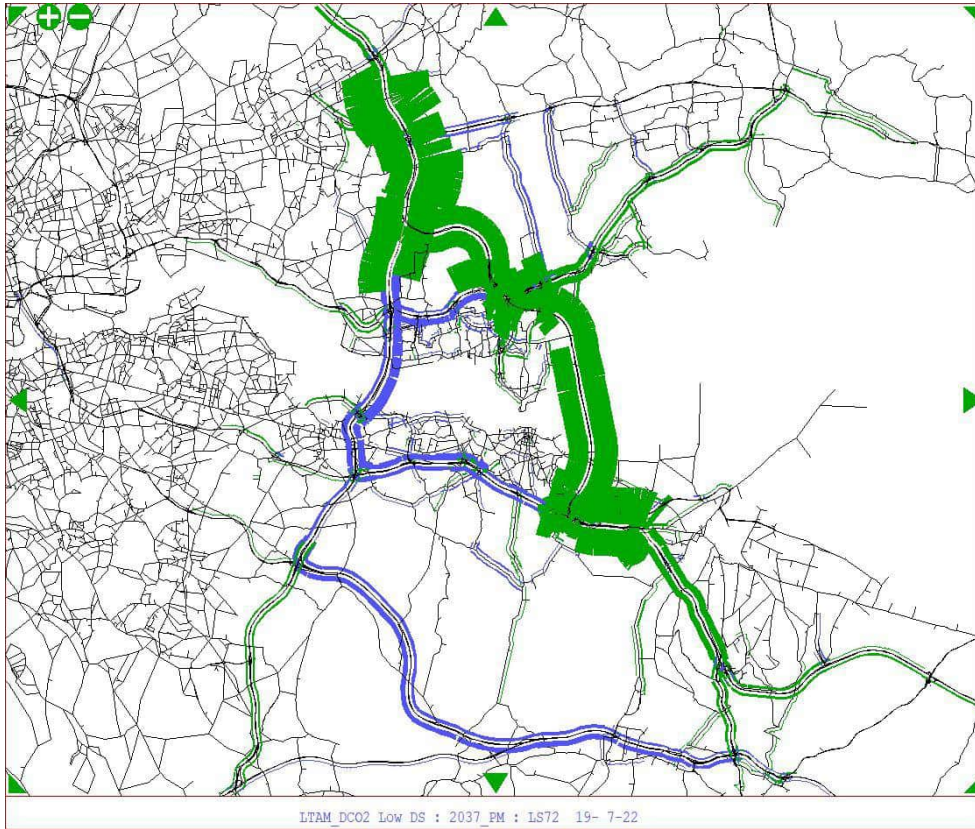
**Plate D.22 Actual Flow Comparison Plot – 2037 Low Growth DM Vs DS AM Peak**



**Plate D.23 Actual Flow Comparison Plot – 2037 Low Growth DM Vs DS Inter Peak**



**Plate D.24 Actual Flow Comparison Plot – 2037 Low Growth DM Vs DS PM Peak**





**Table D.43 Cross River Traffic Flows (NB Flows Approaching TMC) – 2037 Low Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,765	3,770	5	0%	1,708	1,592	-117	-7%	3,026	2,376	-650	-21%	8,500	7,738	-762	-9%	8,500	1.00	0.91
		IP	3,509	2,912	-597	-17%	839	691	-147	-18%	2,801	1,825	-975	-35%	7,149	5,429	-1,720	-24%	8,500	0.84	0.64
		PM	5,020	4,119	-901	-18%	1,101	841	-260	-24%	1,922	1,229	-693	-36%	8,043	6,189	-1,854	-23%	8,500	0.95	0.73
	LTC	AM	0	2,315	-	-	0	321	-	-	0	978	-	-	0	3,614	-	-	6,360	-	0.57
		IP	0	1,719	-	-	0	174	-	-	0	1,017	-	-	0	2,911	-	-	6,360	-	0.46
		PM	0	3,423	-	-	0	302	-	-	0	740	-	-	0	4,466	-	-	6,360	-	0.70
	Total	AM	3,765	6,085	2,320	62%	1,708	1,913	204	12%	3,026	3,354	327	11%	8,500	11,352	2,852	34%	14,860	-	0.76
		IP	3,509	4,631	1,122	32%	839	866	27	3%	2,801	2,843	42	2%	7,149	8,339	1,191	17%	14,860	-	0.56
		PM	5,020	7,542	2,522	50%	1,101	1,143	42	4%	1,922	1,970	48	2%	8,043	10,655	2,612	32%	14,860	-	0.72

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
NB	Dartford*	AM	3,860	3,366	-494	-13%	1,412	997	-415	-29%	2,262	1,499	-763	-34%	7,534	5,862	-1,672	-22%	6,981	1.08	0.84
		IP	3,354	2,993	-361	-11%	934	680	-254	-27%	3,095	1,963	-1,132	-37%	7,383	5,636	-1,746	-24%	6,890	1.07	0.82
		PM	4,679	4,217	-462	-10%	965	781	-184	-19%	1,822	1,183	-639	-35%	7,466	6,181	-1,285	-17%	6,762	1.10	0.91
	LTC	AM	0	3,103	-	-	0	553	-	-	0	968	-	-	0	4,624	-	-	6,360	-	0.73
		IP	0	2,082	-	-	0	319	-	-	0	1,295	-	-	0	3,697	-	-	6,360	-	0.58
		PM	0	2,806	-	-	0	260	-	-	0	692	-	-	0	3,757	-	-	6,360	-	0.59
	Total	AM	3,860	6,469	2,609	68%	1,412	1,550	138	10%	2,262	2,466	204	9%	7,534	10,485	2,951	39%	13,341	-	0.79
		IP	3,354	5,075	1,721	51%	934	999	65	7%	3,095	3,259	164	5%	7,383	9,333	1,950	26%	13,250	-	0.70
		PM	4,679	7,023	2,345	50%	965	1,040	76	8%	1,822	1,875	53	3%	7,466	9,939	2,473	33%	13,122	-	0.76

\* Flows are extracted for the link approaching the TMC

**Table D.44 Cross River Traffic Flows (NB Flows After TMC) – 2037 Low Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,765	3,770	5	0%	1,708	1,592	-117	-7%	3,026	2,376	-650	-21%	8,500	7,738	-762	-9%	8,500	1.00	0.91
		IP	3,509	2,912	-597	-17%	839	691	-147	-18%	2,801	1,825	-975	-35%	7,149	5,429	-1,720	-24%	8,500	0.84	0.64
		PM	5,020	4,119	-901	-18%	1,101	841	-260	-24%	1,922	1,229	-693	-36%	8,043	6,189	-1,854	-23%	8,500	0.95	0.73
	LTC	AM	0	2,315	-	-	0	321	-	-	0	978	-	-	0	3,614	-	-	6,360	-	0.57
		IP	0	1,719	-	-	0	174	-	-	0	1,017	-	-	0	2,911	-	-	6,360	-	0.46
		PM	0	3,423	-	-	0	302	-	-	0	740	-	-	0	4,466	-	-	6,360	-	0.70
	Total	AM	3,765	6,085	2,320	62%	1,708	1,913	204	12%	3,026	3,354	327	11%	8,500	11,352	2,852	34%	14,860	-	0.76
		IP	3,509	4,631	1,122	32%	839	866	27	3%	2,801	2,843	42	2%	7,149	8,339	1,191	17%	14,860	-	0.56
		PM	5,020	7,542	2,522	50%	1,101	1,143	42	4%	1,922	1,970	48	2%	8,043	10,655	2,612	32%	14,860	-	0.72
NB	Dartford*	AM	3,580	3,366	-214	-6%	1,309	997	-312	-24%	2,093	1,499	-594	-28%	6,981	5,862	-1,120	-16%	6,981	1.00	0.84
		IP	3,130	2,993	-137	-4%	872	680	-192	-22%	2,888	1,963	-924	-32%	6,890	5,636	-1,254	-18%	6,890	1.00	0.82
		PM	4,237	4,217	-20	0%	874	781	-93	-11%	1,651	1,183	-468	-28%	6,762	6,181	-580	-9%	6,762	1.00	0.91
	LTC	AM	0	3,103	-	-	0	553	-	-	0	968	-	-	0	4,624	-	-	6,360	-	0.73
		IP	0	2,082	-	-	0	319	-	-	0	1,295	-	-	0	3,697	-	-	6,360	-	0.58
		PM	0	2,806	-	-	0	260	-	-	0	692	-	-	0	3,757	-	-	6,360	-	0.59
	Total	AM	3,580	6,469	2,889	81%	1,309	1,550	242	18%	2,093	2,466	373	18%	6,981	10,485	3,504	50%	13,341	-	0.79
		IP	3,130	5,075	1,945	62%	872	999	127	15%	2,888	3,259	371	13%	6,890	9,333	2,443	35%	13,250	-	0.70
		PM	4,237	7,023	2,787	66%	874	1,040	166	19%	1,651	1,875	224	14%	6,762	9,939	3,177	47%	13,122	-	0.76

\* Flows are extracted for the link after the TMC

D.3.9 The movements considered critical to understanding the impacts of the scheme are the same as those in Chapter 8 of the main document. Table D.45 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

**Table D.45 Key Corridor Traffic Flows – 2037 Low Growth DM Vs DS (Hourly Flows in PCUs)**

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	7,441	9,180	0.81	8,674	9,180	0.94	1,232	17%
		IP	6,579	9,180	0.72	7,356	9,180	0.80	777	12%
		PM	6,723	9,180	0.73	7,610	9,180	0.83	887	13%
	M25 J28 to M25 J29 (SB)	AM	7,578	9,115	0.83	7,785	9,180	0.85	207	3%
		IP	7,079	9,115	0.78	7,384	9,180	0.80	304	4%
		PM	7,499	9,115	0.82	8,041	9,180	0.88	542	7%
B	M25 J4 to M25 J3 (NB)	AM	5,418	6,850	0.79	5,591	6,850	0.82	173	3%
		IP	5,427	6,850	0.79	5,622	6,850	0.82	195	4%
		PM	6,093	6,850	0.89	6,271	6,850	0.92	178	3%
	M25 J3 to M25 J4 (SB)	AM	6,804	6,850	0.99	6,843	6,850	1.00	39	1%
		IP	5,149	6,850	0.75	5,235	6,850	0.76	86	2%
		PM	5,646	6,850	0.82	5,893	6,850	0.86	247	4%
C	A13 A126 to A1012 (EB)	AM	5,049	6,312	0.80	4,079	6,298	0.65	-969	-19%
		IP	5,003	6,299	0.79	4,226	6,284	0.67	-777	-16%
		PM	5,751	6,266	0.92	5,499	6,238	0.88	-252	-4%
	A13 A1012 to A126 (WB)	AM	6,123	6,360	0.96	5,353	6,360	0.84	-770	-13%
		IP	5,294	6,360	0.83	4,392	6,360	0.69	-901	-17%
		PM	5,793	6,360	0.91	4,744	6,360	0.75	-1,049	-18%
D	A13 Orsett Cock to Manor Way (EB)	AM	4,795	6,370	0.75	5,400	6,370	0.85	606	13%
		IP	4,064	6,370	0.64	4,741	6,370	0.74	677	17%
		PM	4,837	6,370	0.76	5,751	6,370	0.90	914	19%
	A13 Manor Way to Orsett Cock (WB)	AM	5,114	6,220	0.82	5,795	6,220	0.93	681	13%
		IP	4,158	6,220	0.67	4,851	6,220	0.78	693	17%
		PM	4,641	6,220	0.75	5,733	6,220	0.92	1,091	24%

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
E	A2 A227 to Gravesend East (EB)	AM	6,060	9,241	0.66	5,024	9,235	0.54	-1,036	-17%
		IP	6,233	9,196	0.68	5,135	9,188	0.56	-1,098	-18%
		PM	9,021	9,188	0.98	8,485	9,177	0.92	-536	-6%
	A2 Gravesend East to A227 (WB)	AM	6,883	7,241	0.95	6,295	7,011	0.90	-588	-9%
		IP	5,775	7,056	0.82	4,843	6,897	0.70	-932	-16%
		PM	5,979	6,853	0.87	5,507	6,746	0.82	-472	-8%
F	M2 J1 to M2 J2 (EB)	AM	5,174	8,544	0.61	6,132	8,377	0.73	958	19%
		IP	4,371	8,662	0.50	5,180	8,454	0.61	809	19%
		PM	6,289	8,563	0.73	7,621	8,482	0.90	1,331	21%
	M2 J2 to M2 J1 (WB)	AM	5,638	8,812	0.64	7,254	8,620	0.84	1,616	29%
		IP	3,912	8,852	0.44	5,410	8,775	0.62	1,498	38%
		PM	5,069	8,923	0.57	6,255	8,721	0.72	1,187	23%
G	M20 J3 to M20 J4 (EB)	AM	5,666	9,115	0.62	5,197	9,115	0.57	-469	-8%
		IP	5,495	9,115	0.60	5,016	9,115	0.55	-478	-9%
		PM	8,408	9,115	0.92	7,924	9,115	0.87	-484	-6%
	M20 J4 to M20 J3 (WB)	AM	8,497	9,115	0.93	7,688	9,115	0.84	-809	-10%
		IP	5,273	9,115	0.58	4,244	9,115	0.47	-1,030	-20%
		PM	5,568	9,115	0.61	4,706	9,115	0.52	-862	-15%

### DM Vs DS Journey Time Comparisons

- D.3.10 The same link based and route based journey time comparisons introduced under Chapter 8 of the main document are repeated for this year scenario combination.
- D.3.11 The link based journey time comparisons for this scenario are presented in Table D.46 to Table D.48.
- D.3.12 Table D.49 to Table D.54 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

**Table D.46 Link Based Journey Time Scenario Comparison (2037 Low Growth DM Vs DS) AM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	16.3	86.5	23.5	16.7	84.6	0.0	0.4	-1.9	-0.1%	2.1%	-2.2%
	B to D	M25 J29	M25 J2	18.8	19.1	59.0	18.9	14.5	77.9	0.1	-4.6	18.8	0.3%	-24.0%	31.9%
	D to F	M25 J2	M25 J7	37.7	29.1	77.9	37.7	30.5	74.1	0.0	1.5	-3.8	0.0%	5.1%	-4.9%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	25.0	91.3	38.0	25.2	90.4	0.0	0.2	-0.8	0.0%	0.9%	-0.9%
	D to B	M25 J2	M25 J29	18.7	19.3	58.1	18.8	13.6	82.8	0.1	-5.7	24.7	0.6%	-29.4%	42.6%
	B to A	M25 J29	M25 J26	23.2	16.7	83.6	23.1	18.9	73.5	-0.1	2.2	-10.1	-0.3%	13.4%	-12.1%
A13 EB	C to G	M25 J30	A1089	5.2	5.0	62.1	5.3	4.2	75.7	0.0	-0.9	13.6	0.9%	-17.2%	21.9%
	G to H	A1089	A130	15.7	12.1	78.3	15.7	13.4	70.3	-0.1	1.3	-8.0	-0.4%	10.9%	-10.2%
A13 WB	H to G	A130	A1089	15.3	14.4	63.7	15.2	15.4	59.1	-0.1	1.0	-4.6	-0.7%	7.1%	-7.2%
	G to C	A1089	M25 J30	5.5	8.5	38.7	5.6	5.6	59.6	0.1	-2.9	20.9	1.6%	-34.1%	54.1%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	9.3	98.5	15.3	8.9	103.4	0.1	-0.4	4.9	0.5%	-4.3%	5.0%
	I to J	M2 J1	M2 J4	14.7	8.4	104.9	14.7	8.7	101.6	0.0	0.3	-3.2	0.0%	3.2%	-3.1%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	9.1	100.6	15.1	9.8	92.3	-0.1	0.8	-8.3	-0.7%	8.3%	-8.3%
	I to D	M2 J1	M25 J2	14.8	17.5	50.6	14.8	12.8	69.8	0.1	-4.7	19.2	0.6%	-27.0%	37.9%
M20 EB	E to K	M25 J3	M20 J8	35.3	20.2	104.8	35.3	20.0	106.0	0.0	-0.2	1.2	0.0%	-1.2%	1.2%
M20 WB	K to E	M20 J8	M25 J3	35.3	24.1	88.0	35.3	22.4	94.5	0.0	-1.7	6.5	0.0%	-6.9%	7.4%

**Table D.47 Link Based Journey Time Scenario Comparison (2037 Low Growth DM Vs DS) Inter Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	15.5	91.2	23.5	15.8	89.1	0.0	0.4	-2.1	-0.1%	2.3%	-2.3%
	B to D	M25 J29	M25 J2	18.8	13.5	83.8	18.9	12.2	92.6	0.1	-1.3	8.8	0.3%	-9.3%	10.5%
	D to F	M25 J2	M25 J7	37.7	23.8	95.2	37.7	23.8	95.3	0.0	0.0	0.1	0.0%	-0.1%	0.1%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	24.5	93.2	38.0	24.8	92.0	0.0	0.3	-1.2	0.0%	1.3%	-1.3%
	D to B	M25 J2	M25 J29	18.7	17.7	63.4	18.8	13.1	86.0	0.1	-4.6	22.7	0.6%	-25.9%	35.8%
	B to A	M25 J29	M25 J26	23.2	14.3	97.1	23.1	15.3	91.0	-0.1	0.9	-6.1	-0.3%	6.4%	-6.3%
A13 EB	C to G	M25 J30	A1089	5.2	5.1	61.7	5.3	4.2	74.8	0.0	-0.9	13.1	0.9%	-16.8%	21.3%
	G to H	A1089	A130	15.7	11.2	83.9	15.7	12.0	78.1	-0.1	0.8	-5.9	-0.4%	7.1%	-7.0%
A13 WB	H to G	A130	A1089	15.3	11.1	82.6	15.2	11.8	77.1	-0.1	0.7	-5.5	-0.7%	6.5%	-6.7%
	G to C	A1089	M25 J30	5.5	5.7	57.6	5.6	4.6	72.8	0.1	-1.1	15.1	1.6%	-19.5%	26.3%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	9.3	98.9	15.3	8.9	104.0	0.1	-0.4	5.2	0.5%	-4.5%	5.2%
	I to J	M2 J1	M2 J4	14.7	8.2	107.0	14.7	8.4	105.3	0.0	0.1	-1.7	0.0%	1.6%	-1.6%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	8.4	107.9	15.1	8.6	104.7	-0.1	0.2	-3.2	-0.7%	2.4%	-3.0%
	I to D	M2 J1	M25 J2	14.8	10.7	82.5	14.8	8.9	100.1	0.1	-1.8	17.6	0.6%	-17.1%	21.3%
M20 EB	E to K	M25 J3	M20 J8	35.3	19.9	106.6	35.3	19.7	107.5	0.0	-0.2	0.9	0.0%	-0.8%	0.8%
M20 WB	K to E	M20 J8	M25 J3	35.3	20.1	105.7	35.3	19.7	107.4	0.0	-0.3	1.7	0.0%	-1.6%	1.6%

**Table D.48 Link Based Journey Time Scenario Comparison (2037 Low Growth DM Vs DS) PM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	17.1	82.4	23.5	18.0	78.2	0.0	0.9	-4.3	-0.1%	5.4%	-5.2%
	B to D	M25 J29	M25 J2	18.8	16.0	70.5	18.9	12.9	87.8	0.1	-3.1	17.3	0.3%	-19.5%	24.5%
	D to F	M25 J2	M25 J7	37.7	24.0	94.4	37.7	24.3	93.2	0.0	0.3	-1.2	0.0%	1.3%	-1.3%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	28.2	81.0	38.0	28.8	79.1	0.0	0.7	-1.9	0.0%	2.4%	-2.3%
	D to B	M25 J2	M25 J29	18.7	18.2	61.5	18.8	13.5	83.4	0.1	-4.7	21.9	0.6%	-25.8%	35.6%
	B to A	M25 J29	M25 J26	23.2	14.3	97.7	23.1	15.3	91.0	-0.1	1.0	-6.7	-0.3%	7.0%	-6.8%
A13 EB	C to G	M25 J30	A1089	5.2	7.8	40.1	5.3	5.4	58.8	0.0	-2.4	18.6	0.9%	-31.0%	46.4%
	G to H	A1089	A130	15.7	12.7	74.4	15.7	14.2	66.2	-0.1	1.5	-8.1	-0.4%	11.8%	-10.9%
A13 WB	H to G	A130	A1089	15.3	11.3	80.9	15.2	13.8	66.1	-0.1	2.4	-14.8	-0.7%	21.5%	-18.3%
	G to C	A1089	M25 J30	5.5	6.8	48.2	5.6	4.8	69.2	0.1	-2.0	21.0	1.6%	-29.3%	43.6%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	14.2	64.6	15.3	10.9	84.9	0.1	-3.3	20.3	0.5%	-23.5%	31.4%
	I to J	M2 J1	M2 J4	14.7	9.3	94.9	14.7	11.0	80.1	0.0	1.7	-14.8	0.0%	18.5%	-15.6%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	8.7	104.4	15.1	9.0	100.7	-0.1	0.3	-3.8	-0.7%	3.1%	-3.6%
	I to D	M2 J1	M25 J2	14.8	13.6	65.2	14.8	10.7	83.5	0.1	-2.9	18.3	0.6%	-21.5%	28.1%
M20 EB	E to K	M25 J3	M20 J8	35.3	24.4	86.8	35.3	23.4	90.7	0.0	-1.0	3.8	0.0%	-4.2%	4.4%
M20 WB	K to E	M20 J8	M25 J3	35.3	20.4	103.9	35.3	20.0	105.9	0.0	-0.4	2.0	0.0%	-1.9%	1.9%



**Table D.49 Route Based Journey Time Comparison North to South Movements (2037 Low Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 7	Cheshunt	Bexley	61.8	60.4	61.4	61.8	57.8	64.2	0.0	-2.6	2.8	0.0%	-4.4%	4.6%
1 to 8	Cheshunt	Godstone	91.5	79.8	68.8	91.5	76.9	71.4	0.0	-2.8	2.5	0.0%	-3.5%	3.7%
1 to 9	Cheshunt	Southfleet	62.1	56.4	66.1	62.1	51.8	72.0	0.0	-4.6	5.9	0.0%	-8.1%	8.9%
1 to 10	Cheshunt	Maidstone	88.1	73.8	71.7	82.9	70.0	71.0	-5.3	-3.8	-0.7	-6.0%	-5.1%	-0.9%
1 to 11	Cheshunt	Rochester	74.4	71.9	62.1	70.2	62.5	67.4	-4.2	-9.5	5.4	-5.7%	-13.2%	8.6%
1 to 12	Cheshunt	Rainham	91.4	77.6	70.6	87.3	68.2	76.8	-4.1	-9.5	6.2	-4.5%	-12.2%	8.8%
2 to 7	Romford	Bexley	31.9	51.0	37.4	35.7	45.6	47.0	3.9	-5.4	9.5	12.1%	-10.6%	25.5%
2 to 8	Romford	Godstone	61.5	70.4	52.4	65.4	64.8	60.6	3.9	-5.6	8.1	6.3%	-8.0%	15.5%
2 to 9	Romford	Southfleet	32.2	47.0	41.1	36.1	39.6	54.6	3.9	-7.4	13.5	12.0%	-15.7%	32.8%
2 to 10	Romford	Maidstone	58.2	64.4	54.2	56.8	57.9	58.8	-1.4	-6.6	4.6	-2.5%	-10.2%	8.6%
2 to 11	Romford	Rochester	44.5	62.6	42.6	44.1	50.3	52.6	-0.4	-12.3	9.9	-0.8%	-19.6%	23.3%
2 to 12	Romford	Rainham	61.4	68.3	54.0	61.2	56.0	65.5	-0.3	-12.3	11.6	-0.4%	-18.0%	21.4%
3 to 7	Brentwood	Bexley	33.0	42.2	47.0	32.9	38.3	51.6	-0.1	-3.9	4.6	-0.3%	-9.2%	9.8%
3 to 8	Brentwood	Godstone	62.7	61.5	61.1	62.6	57.5	65.4	-0.1	-4.1	4.2	-0.1%	-6.6%	6.9%
3 to 9	Brentwood	Southfleet	33.3	38.1	52.5	33.2	32.3	61.7	-0.1	-5.8	9.3	-0.3%	-15.2%	17.7%
3 to 10	Brentwood	Maidstone	59.3	55.6	64.1	53.9	50.5	64.0	-5.4	-5.0	-0.1	-9.1%	-9.0%	-0.1%
3 to 11	Brentwood	Rochester	45.6	53.7	51.0	41.3	43.0	57.6	-4.3	-10.7	6.7	-9.5%	-20.0%	13.1%
3 to 12	Brentwood	Rainham	62.6	59.4	63.2	58.4	48.7	72.0	-4.2	-10.7	8.7	-6.7%	-18.0%	13.8%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
4 to 7	Basildon	Bexley	37.2	52.2	42.7	39.6	48.9	48.6	2.4	-3.3	5.9	6.6%	-6.4%	13.8%
4 to 8	Basildon	Godstone	66.9	71.6	56.0	69.3	68.1	61.1	2.4	-3.5	5.0	3.7%	-4.9%	9.0%
4 to 9	Basildon	Southfleet	37.5	48.2	46.7	34.5	37.8	54.7	-3.0	-10.4	8.0	-8.1%	-21.5%	17.1%
4 to 10	Basildon	Maidstone	63.5	65.6	58.1	48.7	54.1	54.0	-14.8	-11.5	-4.1	-23.3%	-17.6%	-7.0%
4 to 11	Basildon	Rochester	49.8	63.8	46.9	36.0	46.5	46.5	-13.8	-17.2	-0.4	-27.6%	-27.0%	-0.8%
4 to 12	Basildon	Rainham	66.8	69.5	57.7	53.1	52.2	61.0	-13.6	-17.2	3.4	-20.4%	-24.8%	5.9%
5 to 7	Tilbury Port	Bexley	28.3	38.3	44.4	28.3	33.3	51.0	0.0	-4.9	6.6	0.0%	-12.9%	14.8%
5 to 8	Tilbury Port	Godstone	58.0	57.6	60.4	58.0	52.5	66.3	0.0	-5.1	5.9	0.0%	-8.9%	9.7%
5 to 9	Tilbury Port	Southfleet	28.6	34.2	50.2	27.7	22.1	75.3	-0.9	-12.1	25.1	-3.2%	-35.4%	50.0%
5 to 10	Tilbury Port	Maidstone	54.6	51.6	63.5	41.9	38.3	65.6	-12.7	-13.3	2.1	-23.3%	-25.8%	3.4%
5 to 11	Tilbury Port	Rochester	40.9	49.8	49.3	29.3	30.8	57.1	-11.6	-19.0	7.8	-28.4%	-38.2%	15.8%
5 to 12	Tilbury Port	Rainham	57.9	55.5	62.6	46.4	36.5	76.3	-11.5	-19.0	13.7	-19.9%	-34.3%	21.9%
6 to 7	DP World	Bexley	32.1	42.4	45.4	32.1	37.3	51.6	0.0	-5.1	6.2	0.0%	-12.1%	13.7%
6 to 8	DP World	Godstone	61.8	61.8	60.0	61.8	56.5	65.6	0.0	-5.3	5.6	0.0%	-8.6%	9.4%
6 to 9	DP World	Southfleet	32.4	38.4	50.7	29.0	24.5	71.3	-3.4	-13.9	20.5	-10.4%	-36.2%	40.5%
6 to 10	DP World	Maidstone	58.4	55.8	62.8	43.3	40.7	63.8	-15.2	-15.1	0.9	-26.0%	-27.0%	1.4%
6 to 11	DP World	Rochester	44.7	53.9	49.8	30.6	33.1	55.4	-14.1	-20.8	5.7	-31.6%	-38.5%	11.4%
6 to 12	DP World	Rainham	61.7	59.6	62.1	47.7	38.8	73.7	-14.0	-20.8	11.6	-22.7%	-34.9%	18.7%

**Table D.50 Route Based Journey Time Comparison North to South Movements (2037 Low Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 7	Cheshunt	Bexley	61.8	50.2	74.0	61.9	49.4	75.2	0.0	-0.8	1.2	0.0%	-1.6%	1.7%
1 to 8	Cheshunt	Godstone	91.5	66.3	82.8	91.5	65.4	84.0	0.0	-0.9	1.2	0.0%	-1.4%	1.4%
1 to 9	Cheshunt	Southfleet	62.2	47.5	78.4	62.2	46.3	80.5	0.0	-1.2	2.1	0.0%	-2.5%	2.6%
1 to 10	Cheshunt	Maidstone	88.2	63.5	83.3	82.9	60.0	82.8	-5.3	-3.5	-0.5	-6.0%	-5.5%	-0.5%
1 to 11	Cheshunt	Rochester	74.4	60.8	73.4	70.2	55.6	75.7	-4.2	-5.2	2.3	-5.7%	-8.5%	3.1%
1 to 12	Cheshunt	Rainham	91.4	68.1	80.5	87.3	62.8	83.4	-4.1	-5.3	2.9	-4.5%	-7.8%	3.6%
2 to 7	Romford	Bexley	35.6	39.5	54.1	35.6	37.5	56.9	0.0	-2.0	2.9	0.0%	-5.0%	5.3%
2 to 8	Romford	Godstone	65.2	55.6	70.4	65.3	53.5	73.1	0.0	-2.1	2.8	0.0%	-3.8%	3.9%
2 to 9	Romford	Southfleet	35.9	36.8	58.4	35.9	34.5	62.5	0.0	-2.4	4.1	0.0%	-6.5%	6.9%
2 to 10	Romford	Maidstone	61.9	52.8	70.3	56.6	48.2	70.5	-5.3	-4.7	0.2	-8.6%	-8.8%	0.3%
2 to 11	Romford	Rochester	48.1	50.1	57.6	43.9	43.8	60.2	-4.3	-6.4	2.5	-8.8%	-12.7%	4.4%
2 to 12	Romford	Rainham	65.2	57.4	68.1	61.0	51.0	71.9	-4.1	-6.5	3.8	-6.3%	-11.3%	5.6%
3 to 7	Brentwood	Bexley	33.1	32.7	60.8	33.1	31.3	63.6	0.0	-1.4	2.7	0.0%	-4.3%	4.5%
3 to 8	Brentwood	Godstone	62.8	48.9	77.1	62.8	47.3	79.6	0.0	-1.5	2.5	0.0%	-3.1%	3.2%
3 to 9	Brentwood	Southfleet	33.5	30.1	66.8	33.5	28.3	71.1	0.0	-1.8	4.3	0.0%	-6.0%	6.4%
3 to 10	Brentwood	Maidstone	59.5	46.1	77.5	54.2	42.0	77.4	-5.3	-4.1	-0.1	-9.0%	-8.9%	-0.1%
3 to 11	Brentwood	Rochester	45.7	43.3	63.3	41.5	37.6	66.2	-4.3	-5.8	2.9	-9.3%	-13.3%	4.6%
3 to 12	Brentwood	Rainham	62.7	50.6	74.3	58.6	44.8	78.6	-4.1	-5.9	4.3	-6.6%	-11.6%	5.7%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
4 to 7	Basildon	Bexley	39.7	36.7	64.9	39.6	35.1	67.8	-0.1	-1.6	2.9	-0.2%	-4.4%	4.4%
4 to 8	Basildon	Godstone	69.4	52.9	78.7	69.3	51.1	81.3	-0.1	-1.8	2.6	-0.1%	-3.3%	3.3%
4 to 9	Basildon	Southfleet	40.0	34.1	70.5	33.8	27.5	73.6	-6.3	-6.6	3.1	-15.7%	-19.2%	4.4%
4 to 10	Basildon	Maidstone	66.0	50.1	79.1	48.0	39.8	72.3	-18.1	-10.3	-6.8	-27.4%	-20.5%	-8.7%
4 to 11	Basildon	Rochester	52.3	47.3	66.3	35.3	35.4	59.8	-17.0	-12.0	-6.5	-32.5%	-25.2%	-9.8%
4 to 12	Basildon	Rainham	69.3	54.6	76.1	52.4	42.6	73.9	-16.9	-12.1	-2.2	-24.4%	-22.1%	-2.9%
5 to 7	Tilbury Port	Bexley	28.3	29.0	58.5	28.3	27.1	62.8	0.0	-2.0	4.3	0.0%	-6.8%	7.3%
5 to 8	Tilbury Port	Godstone	58.0	45.2	77.0	58.0	43.1	80.7	0.0	-2.1	3.8	0.0%	-4.6%	4.9%
5 to 9	Tilbury Port	Southfleet	28.6	26.4	65.1	27.7	19.2	86.7	-0.9	-7.2	21.6	-3.2%	-27.3%	33.2%
5 to 10	Tilbury Port	Maidstone	54.6	42.4	77.3	41.9	31.5	79.9	-12.7	-10.9	2.6	-23.3%	-25.8%	3.3%
5 to 11	Tilbury Port	Rochester	40.9	39.7	61.8	29.2	27.1	64.8	-11.7	-12.6	3.0	-28.5%	-31.8%	4.8%
5 to 12	Tilbury Port	Rainham	57.9	47.0	73.9	46.4	34.3	81.2	-11.5	-12.7	7.3	-19.9%	-27.1%	9.8%
6 to 7	DP World	Bexley	32.1	32.5	59.2	32.1	30.8	62.5	0.0	-1.7	3.3	0.0%	-5.3%	5.6%
6 to 8	DP World	Godstone	61.8	48.7	76.1	61.8	46.8	79.1	0.0	-1.9	3.0	0.0%	-3.8%	4.0%
6 to 9	DP World	Southfleet	32.4	29.9	65.1	29.0	21.3	81.6	-3.4	-8.6	16.6	-10.4%	-28.6%	25.5%
6 to 10	DP World	Maidstone	58.4	45.9	76.4	43.2	33.6	77.1	-15.2	-12.3	0.8	-26.0%	-26.7%	1.0%
6 to 11	DP World	Rochester	44.7	43.2	62.1	30.6	29.2	62.7	-14.1	-14.0	0.6	-31.6%	-32.3%	1.0%
6 to 12	DP World	Rainham	61.7	50.5	73.3	47.7	36.4	78.6	-14.0	-14.1	5.3	-22.7%	-27.9%	7.2%

**Table D.51 Route Based Journey Time Comparison North to South Movements (2037 Low Growth DM Vs DS) PM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 7	Cheshunt	Bexley	61.9	58.0	64.0	61.9	56.3	66.0	0.0	-1.7	2.0	0.0%	-2.9%	3.1%
1 to 8	Cheshunt	Godstone	91.6	72.6	75.7	91.6	70.8	77.7	0.0	-1.8	2.0	0.0%	-2.5%	2.6%
1 to 9	Cheshunt	Southfleet	60.8	55.0	66.3	62.3	51.6	72.4	1.4	-3.4	6.1	2.4%	-6.2%	9.1%
1 to 10	Cheshunt	Maidstone	88.2	74.1	71.5	82.9	69.6	71.5	-5.3	-4.5	0.0	-6.0%	-6.0%	0.0%
1 to 11	Cheshunt	Rochester	74.9	74.0	60.8	70.8	65.2	65.1	-4.1	-8.8	4.4	-5.5%	-11.9%	7.2%
1 to 12	Cheshunt	Rainham	91.5	86.9	63.2	87.4	77.9	67.3	-4.1	-9.0	4.1	-4.5%	-10.3%	6.5%
2 to 7	Romford	Bexley	35.7	49.7	43.2	35.7	44.9	47.7	0.0	-4.7	4.5	0.0%	-9.5%	10.5%
2 to 8	Romford	Godstone	65.4	64.2	61.1	65.4	59.4	66.1	0.0	-4.9	5.0	0.0%	-7.6%	8.2%
2 to 9	Romford	Southfleet	34.6	46.6	44.6	36.1	40.2	53.8	1.4	-6.4	9.2	4.1%	-13.8%	20.8%
2 to 10	Romford	Maidstone	62.1	65.7	56.7	56.7	58.2	58.5	-5.3	-7.5	1.8	-8.6%	-11.4%	3.2%
2 to 11	Romford	Rochester	48.8	65.6	44.6	44.6	53.8	49.8	-4.1	-11.8	5.2	-8.5%	-18.0%	11.6%
2 to 12	Romford	Rainham	65.3	78.5	49.9	61.2	66.5	55.3	-4.1	-12.0	5.3	-6.3%	-15.3%	10.6%
3 to 7	Brentwood	Bexley	33.0	39.5	50.2	32.9	36.7	53.9	-0.1	-2.8	3.7	-0.3%	-7.1%	7.3%
3 to 8	Brentwood	Godstone	62.7	54.0	69.6	62.6	51.1	73.5	-0.1	-2.9	3.9	-0.1%	-5.4%	5.6%
3 to 9	Brentwood	Southfleet	31.9	36.5	52.5	33.2	31.9	62.4	1.3	-4.5	9.9	4.2%	-12.4%	18.9%
3 to 10	Brentwood	Maidstone	59.3	55.5	64.1	53.9	50.0	64.8	-5.4	-5.6	0.6	-9.1%	-10.0%	1.0%
3 to 11	Brentwood	Rochester	46.0	55.4	49.8	41.8	45.6	55.1	-4.2	-9.9	5.2	-9.2%	-17.8%	10.5%
3 to 12	Brentwood	Rainham	62.6	68.3	55.0	58.4	58.2	60.2	-4.2	-10.1	5.2	-6.7%	-14.8%	9.4%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
4 to 7	Basildon	Bexley	36.8	44.2	50.0	36.8	41.4	53.4	0.0	-2.8	3.4	0.0%	-6.3%	6.7%
4 to 8	Basildon	Godstone	66.5	58.7	67.9	66.5	55.8	71.5	0.0	-2.9	3.6	0.0%	-5.0%	5.3%
4 to 9	Basildon	Southfleet	35.7	41.2	52.1	33.8	30.1	67.4	-2.0	-11.1	15.3	-5.5%	-26.9%	29.4%
4 to 10	Basildon	Maidstone	63.2	60.2	62.9	48.0	46.2	62.3	-15.2	-14.1	-0.6	-24.1%	-23.3%	-0.9%
4 to 11	Basildon	Rochester	49.9	60.1	49.7	35.9	41.8	51.5	-14.0	-18.4	1.8	-28.1%	-30.5%	3.5%
4 to 12	Basildon	Rainham	66.4	73.0	54.6	52.4	54.4	57.8	-14.0	-18.6	3.2	-21.1%	-25.5%	5.9%
5 to 7	Tilbury Port	Bexley	28.3	34.7	48.9	28.3	30.2	56.3	0.0	-4.5	7.3	0.0%	-13.0%	15.0%
5 to 8	Tilbury Port	Godstone	58.0	49.3	70.6	58.0	44.6	78.0	0.0	-4.7	7.4	0.0%	-9.5%	10.5%
5 to 9	Tilbury Port	Southfleet	27.2	31.7	51.5	27.7	20.4	81.3	0.5	-11.3	29.9	1.9%	-35.5%	58.0%
5 to 10	Tilbury Port	Maidstone	54.6	50.8	64.6	41.9	36.5	68.8	-12.7	-14.2	4.2	-23.3%	-28.0%	6.6%
5 to 11	Tilbury Port	Rochester	41.3	50.7	48.9	29.8	32.1	55.6	-11.5	-18.5	6.7	-27.9%	-36.6%	13.7%
5 to 12	Tilbury Port	Rainham	57.9	63.5	54.7	46.4	44.8	62.1	-11.5	-18.8	7.5	-19.9%	-29.5%	13.7%
6 to 7	DP World	Bexley	32.1	38.4	50.2	32.1	35.1	54.9	0.0	-3.3	4.7	-0.1%	-8.6%	9.3%
6 to 8	DP World	Godstone	61.8	52.9	70.0	61.8	49.5	74.9	0.0	-3.4	4.8	0.0%	-6.5%	6.9%
6 to 9	DP World	Southfleet	31.0	35.4	52.6	29.0	23.8	73.3	-2.0	-11.6	20.7	-6.3%	-32.8%	39.3%
6 to 10	DP World	Maidstone	58.4	54.4	64.4	43.2	39.9	65.1	-15.2	-14.5	0.6	-26.0%	-26.7%	1.0%
6 to 11	DP World	Rochester	45.1	54.4	49.8	31.1	35.5	52.6	-14.0	-18.9	2.8	-31.0%	-34.7%	5.6%
6 to 12	DP World	Rainham	61.7	67.2	55.1	47.7	48.1	59.5	-14.0	-19.1	4.4	-22.7%	-28.4%	8.0%

**Table D.52 Route Based Journey Time Comparison South to North Movements (2037 Low Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
7 to 1	Bexley	Cheshunt	61.6	56.9	64.9	61.6	54.0	68.5	0.0	-2.9	3.5	0.1%	-5.1%	5.5%
7 to 2	Bexley	Romford	34.7	44.1	47.2	34.7	38.5	54.1	0.0	-5.6	6.9	0.0%	-12.7%	14.6%
7 to 3	Bexley	Brentwood	33.1	39.6	50.2	33.2	35.4	56.2	0.0	-4.2	6.0	0.1%	-10.6%	12.0%
7 to 4	Bexley	Basildon	36.8	41.2	53.6	36.8	35.9	61.6	0.0	-5.3	7.9	-0.1%	-12.9%	14.8%
7 to 5	Bexley	Tilbury Port	28.6	35.2	48.7	28.6	29.5	58.1	0.0	-5.7	9.4	0.0%	-16.2%	19.3%
7 to 6	Bexley	DP World	32.4	37.5	51.8	32.4	31.9	60.9	0.0	-5.6	9.1	-0.1%	-15.0%	17.5%
8 to 1	Godstone	Cheshunt	91.8	77.4	71.1	91.8	74.4	74.0	0.0	-3.0	2.9	0.1%	-3.9%	4.1%
8 to 2	Godstone	Romford	64.9	64.6	60.3	64.9	58.9	66.1	0.0	-5.7	5.8	0.0%	-8.8%	9.7%
8 to 3	Godstone	Brentwood	63.3	60.1	63.2	63.4	55.8	68.1	0.0	-4.3	4.9	0.1%	-7.1%	7.7%
8 to 4	Godstone	Basildon	67.0	61.7	65.2	67.0	56.3	71.4	0.0	-5.4	6.2	0.0%	-8.7%	9.6%
8 to 5	Godstone	Tilbury Port	58.7	55.7	63.3	58.7	49.9	70.6	0.0	-5.8	7.3	0.0%	-10.4%	11.6%
8 to 6	Godstone	DP World	62.6	58.0	64.7	62.6	52.4	71.7	0.0	-5.7	7.0	0.0%	-9.8%	10.8%
9 to 1	Southfleet	Cheshunt	60.7	56.8	64.2	60.8	52.2	69.9	0.0	-4.6	5.7	0.1%	-8.1%	8.9%
9 to 2	Southfleet	Romford	33.8	43.9	46.2	33.8	36.6	55.5	0.0	-7.3	9.2	0.0%	-16.6%	20.0%
9 to 3	Southfleet	Brentwood	32.3	39.4	49.1	32.3	33.5	57.8	0.0	-5.9	8.7	0.2%	-14.9%	17.7%
9 to 4	Southfleet	Basildon	36.0	41.1	52.6	35.8	29.1	73.8	-0.1	-11.9	21.2	-0.4%	-29.0%	40.4%
9 to 5	Southfleet	Tilbury Port	27.7	35.0	47.5	31.4	26.2	72.0	3.7	-8.8	24.5	13.4%	-25.2%	51.7%
9 to 6	Southfleet	DP World	31.5	37.4	50.6	31.4	25.2	74.9	-0.1	-12.2	24.2	-0.4%	-32.6%	47.8%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
10 to 1	Maidstone	Cheshunt	88.3	76.8	69.0	83.3	67.3	74.2	-5.0	-9.5	5.3	-5.6%	-12.3%	7.7%
10 to 2	Maidstone	Romford	61.4	64.0	57.6	56.4	51.6	65.6	-5.0	-12.4	8.0	-8.2%	-19.3%	13.8%
10 to 3	Maidstone	Brentwood	59.8	59.5	60.4	54.9	48.7	67.6	-5.0	-10.7	7.2	-8.3%	-18.1%	11.9%
10 to 4	Maidstone	Basildon	63.5	61.1	62.4	50.3	41.6	72.7	-13.2	-19.5	10.3	-20.8%	-32.0%	16.5%
10 to 5	Maidstone	Tilbury Port	55.2	55.1	60.2	45.9	38.6	71.3	-9.4	-16.5	11.1	-16.9%	-29.9%	18.5%
10 to 6	Maidstone	DP World	59.1	57.4	61.7	45.9	37.6	73.2	-13.2	-19.8	11.5	-22.3%	-34.5%	18.6%
11 to 1	Rochester	Cheshunt	75.7	80.3	56.6	70.3	64.0	65.9	-5.4	-16.2	9.3	-7.2%	-20.2%	16.4%
11 to 2	Rochester	Romford	48.8	67.4	43.5	43.3	48.3	53.9	-5.5	-19.1	10.4	-11.3%	-28.4%	23.9%
11 to 3	Rochester	Brentwood	47.3	63.0	45.1	41.8	45.4	55.3	-5.4	-17.5	10.2	-11.5%	-27.8%	22.6%
11 to 4	Rochester	Basildon	51.0	64.6	47.4	37.3	38.3	58.5	-13.7	-26.3	11.1	-26.8%	-40.8%	23.5%
11 to 5	Rochester	Tilbury Port	42.7	58.5	43.8	32.9	35.3	55.9	-9.8	-23.2	12.1	-23.1%	-39.7%	27.6%
11 to 6	Rochester	DP World	46.5	60.9	45.9	32.9	34.3	57.5	-13.7	-26.6	11.6	-29.4%	-43.7%	25.4%
12 to 1	Rainham	Cheshunt	91.7	92.3	59.6	87.7	76.0	69.2	-4.0	-16.3	9.6	-4.4%	-17.6%	16.1%
12 to 2	Rainham	Romford	64.8	79.5	48.9	60.7	60.3	60.4	-4.1	-19.2	11.5	-6.3%	-24.1%	23.5%
12 to 3	Rainham	Brentwood	63.3	75.0	50.6	59.2	57.4	61.9	-4.0	-17.5	11.3	-6.4%	-23.4%	22.2%
12 to 4	Rainham	Basildon	67.0	76.6	52.4	54.7	50.3	65.3	-12.3	-26.3	12.8	-18.3%	-34.4%	24.5%
12 to 5	Rainham	Tilbury Port	58.7	70.6	49.9	50.2	47.3	63.7	-8.4	-23.3	13.9	-14.4%	-33.0%	27.8%
12 to 6	Rainham	DP World	62.5	72.9	51.4	50.2	46.3	65.1	-12.3	-26.6	13.7	-19.6%	-36.5%	26.6%



**Table D.53 Route Based Journey Time Comparison South to North Movements (2037 Low Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
7 to 1	Bexley	Cheshunt	61.6	51.8	71.4	61.6	48.6	76.1	0.0	-3.2	4.8	0.1%	-6.2%	6.7%
7 to 2	Bexley	Romford	35.8	38.3	56.1	35.8	34.0	63.2	0.0	-4.3	7.1	0.0%	-11.2%	12.6%
7 to 3	Bexley	Brentwood	33.1	36.0	55.2	33.2	31.8	62.6	0.0	-4.2	7.4	0.1%	-11.8%	13.5%
7 to 4	Bexley	Basildon	36.8	39.5	56.0	36.8	34.4	64.2	0.0	-5.1	8.3	-0.1%	-12.9%	14.8%
7 to 5	Bexley	Tilbury Port	28.6	36.2	47.4	28.6	31.0	55.3	0.0	-5.2	7.9	0.0%	-14.3%	16.7%
7 to 6	Bexley	DP World	32.4	35.5	54.8	32.4	30.2	64.4	0.0	-5.3	9.6	-0.1%	-15.0%	17.6%
8 to 1	Godstone	Cheshunt	91.8	71.9	76.6	91.8	68.7	80.2	0.0	-3.2	3.6	0.1%	-4.4%	4.6%
8 to 2	Godstone	Romford	66.0	58.4	67.9	66.0	54.1	73.1	0.0	-4.2	5.3	0.0%	-7.2%	7.8%
8 to 3	Godstone	Brentwood	63.3	56.1	67.7	63.4	51.9	73.2	0.0	-4.2	5.5	0.1%	-7.4%	8.1%
8 to 4	Godstone	Basildon	67.0	59.6	67.5	67.0	54.5	73.7	0.0	-5.0	6.2	0.0%	-8.5%	9.2%
8 to 5	Godstone	Tilbury Port	58.8	56.2	62.7	58.8	51.1	69.0	0.0	-5.1	6.3	0.0%	-9.1%	10.0%
8 to 6	Godstone	DP World	62.6	55.6	67.6	62.6	50.3	74.6	0.0	-5.3	7.0	0.0%	-9.5%	10.4%
9 to 1	Southfleet	Cheshunt	60.2	52.6	68.7	60.8	47.3	77.1	0.5	-5.3	8.4	0.9%	-10.1%	12.2%
9 to 2	Southfleet	Romford	34.5	39.1	52.9	35.0	32.7	64.1	0.5	-6.4	11.2	1.4%	-16.3%	21.2%
9 to 3	Southfleet	Brentwood	31.8	36.8	51.8	32.3	30.5	63.6	0.5	-6.3	11.8	1.7%	-17.2%	22.8%
9 to 4	Southfleet	Basildon	35.5	40.3	52.8	35.8	28.0	76.8	0.4	-12.3	24.0	1.0%	-30.5%	45.4%
9 to 5	Southfleet	Tilbury Port	27.2	37.0	44.2	31.4	28.0	67.4	4.2	-9.0	23.2	15.5%	-24.3%	52.5%
9 to 6	Southfleet	DP World	31.0	36.3	51.3	31.4	23.8	79.2	0.4	-12.5	27.9	1.2%	-34.5%	54.4%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
10 to 1	Maidstone	Cheshunt	88.3	67.6	78.3	83.3	60.4	82.7	-5.0	-7.2	4.4	-5.6%	-10.6%	5.6%
10 to 2	Maidstone	Romford	62.5	54.1	69.3	57.5	45.8	75.3	-5.0	-8.3	6.0	-8.0%	-15.3%	8.6%
10 to 3	Maidstone	Brentwood	59.8	51.9	69.2	54.9	43.6	75.5	-4.9	-8.2	6.3	-8.3%	-15.9%	9.0%
10 to 4	Maidstone	Basildon	63.5	55.3	68.9	50.3	38.9	77.7	-13.2	-16.5	8.8	-20.8%	-29.8%	12.8%
10 to 5	Maidstone	Tilbury Port	55.2	52.0	63.8	45.9	38.8	70.9	-9.4	-13.2	7.2	-16.9%	-25.3%	11.2%
10 to 6	Maidstone	DP World	59.1	51.3	69.0	45.9	34.6	79.5	-13.2	-16.7	10.4	-22.3%	-32.5%	15.1%
11 to 1	Rochester	Cheshunt	74.5	68.1	65.6	70.3	56.4	74.7	-4.2	-11.7	9.1	-5.6%	-17.1%	13.9%
11 to 2	Rochester	Romford	48.7	54.6	53.5	44.5	41.8	63.8	-4.2	-12.8	10.3	-8.7%	-23.4%	19.2%
11 to 3	Rochester	Brentwood	46.0	52.3	52.7	41.9	39.6	63.4	-4.2	-12.7	10.6	-9.0%	-24.3%	20.1%
11 to 4	Rochester	Basildon	49.7	55.8	53.4	37.3	34.9	64.2	-12.4	-21.0	10.8	-25.0%	-37.5%	20.1%
11 to 5	Rochester	Tilbury Port	41.4	52.5	47.4	32.9	34.8	56.6	-8.6	-17.6	9.2	-20.7%	-33.6%	19.5%
11 to 6	Rochester	DP World	45.3	51.8	52.4	32.9	30.6	64.3	-12.4	-21.2	11.9	-27.4%	-40.9%	22.7%
12 to 1	Rainham	Cheshunt	91.7	75.3	73.1	87.7	63.5	82.8	-4.0	-11.8	9.7	-4.4%	-15.6%	13.3%
12 to 2	Rainham	Romford	65.9	61.8	64.0	61.8	48.9	75.9	-4.1	-12.9	11.9	-6.2%	-20.9%	18.5%
12 to 3	Rainham	Brentwood	63.3	59.5	63.7	59.2	46.7	76.1	-4.0	-12.8	12.3	-6.4%	-21.5%	19.3%
12 to 4	Rainham	Basildon	67.0	63.0	63.7	54.7	41.9	78.2	-12.3	-21.1	14.5	-18.3%	-33.4%	22.7%
12 to 5	Rainham	Tilbury Port	58.7	59.7	59.0	50.2	41.9	71.9	-8.4	-17.7	12.9	-14.4%	-29.7%	21.9%
12 to 6	Rainham	DP World	62.5	59.0	63.5	50.2	37.7	79.9	-12.3	-21.3	16.3	-19.6%	-36.1%	25.7%

**Table D.54 Route Based Journey Time Comparison South to North Movements (2037 Low Growth DM Vs DS) PM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
7 to 1	Bexley	Cheshunt	61.5	58.7	62.8	61.5	55.2	66.9	0.0	-3.5	4.1	0.1%	-6.0%	6.5%
7 to 2	Bexley	Romford	34.7	44.5	46.8	34.8	40.0	52.2	0.0	-4.5	5.4	0.1%	-10.2%	11.5%
7 to 3	Bexley	Brentwood	33.1	38.5	51.6	33.2	34.5	57.7	0.0	-4.0	6.1	0.2%	-10.4%	11.8%
7 to 4	Bexley	Basildon	36.8	46.5	47.5	36.8	40.3	54.8	0.0	-6.2	7.3	0.0%	-13.4%	15.4%
7 to 5	Bexley	Tilbury Port	28.6	36.8	46.6	28.6	29.6	57.8	0.0	-7.1	11.2	0.0%	-19.4%	24.1%
7 to 6	Bexley	DP World	32.4	40.8	47.6	32.4	34.6	56.1	0.0	-6.2	8.5	0.0%	-15.1%	17.8%
8 to 1	Godstone	Cheshunt	91.2	80.8	67.7	91.2	77.9	70.3	0.0	-2.9	2.5	0.0%	-3.6%	3.7%
8 to 2	Godstone	Romford	64.4	66.5	58.1	64.4	62.6	61.7	0.0	-3.9	3.7	0.1%	-5.9%	6.3%
8 to 3	Godstone	Brentwood	62.8	60.6	62.2	62.8	57.2	65.9	0.0	-3.4	3.7	0.1%	-5.6%	6.0%
8 to 4	Godstone	Basildon	66.5	68.6	58.2	66.5	63.0	63.3	0.0	-5.6	5.1	0.0%	-8.1%	8.8%
8 to 5	Godstone	Tilbury Port	58.2	58.8	59.4	58.2	52.3	66.8	0.0	-6.5	7.4	0.0%	-11.1%	12.4%
8 to 6	Godstone	DP World	62.0	62.9	59.2	62.0	57.3	64.9	0.0	-5.5	5.7	0.0%	-8.8%	9.6%
9 to 1	Southfleet	Cheshunt	60.6	56.8	64.0	60.7	52.6	69.2	0.0	-4.3	5.2	0.1%	-7.5%	8.2%
9 to 2	Southfleet	Romford	33.9	42.6	47.7	33.9	37.3	54.5	0.0	-5.3	6.8	0.1%	-12.3%	14.2%
9 to 3	Southfleet	Brentwood	32.3	36.7	52.8	32.3	31.9	60.7	0.0	-4.7	7.9	0.2%	-12.9%	15.0%
9 to 4	Southfleet	Basildon	36.0	44.7	48.3	36.1	32.0	67.7	0.2	-12.6	19.4	0.5%	-28.3%	40.0%
9 to 5	Southfleet	Tilbury Port	27.7	34.9	47.6	31.7	25.1	75.7	4.0	-9.8	28.1	14.5%	-28.0%	59.0%
9 to 6	Southfleet	DP World	31.5	38.9	48.6	31.7	26.4	72.1	0.2	-12.6	23.6	0.5%	-32.3%	48.5%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
10 to 1	Maidstone	Cheshunt	88.2	74.3	71.2	83.2	68.6	72.8	-5.0	-5.7	1.6	-5.6%	-7.7%	2.2%
10 to 2	Maidstone	Romford	61.4	60.1	61.3	56.4	53.4	63.5	-5.0	-6.7	2.2	-8.1%	-11.2%	3.5%
10 to 3	Maidstone	Brentwood	59.8	54.2	66.3	54.9	48.0	68.6	-5.0	-6.2	2.4	-8.3%	-11.4%	3.5%
10 to 4	Maidstone	Basildon	63.5	62.1	61.3	50.3	45.0	67.1	-13.2	-17.1	5.7	-20.8%	-27.6%	9.4%
10 to 5	Maidstone	Tilbury Port	55.2	52.4	63.3	45.9	38.1	72.2	-9.4	-14.3	9.0	-16.9%	-27.2%	14.2%
10 to 6	Maidstone	DP World	59.1	56.4	62.8	45.9	39.3	69.9	-13.2	-17.1	7.1	-22.3%	-30.3%	11.4%
11 to 1	Rochester	Cheshunt	74.4	79.3	56.3	70.2	65.9	63.9	-4.2	-13.4	7.7	-5.6%	-16.9%	13.6%
11 to 2	Rochester	Romford	47.6	65.1	43.9	43.4	50.6	51.4	-4.2	-14.5	7.6	-8.8%	-22.2%	17.3%
11 to 3	Rochester	Brentwood	46.0	59.2	46.7	41.9	45.3	55.5	-4.2	-13.9	8.8	-9.1%	-23.5%	18.9%
11 to 4	Rochester	Basildon	49.7	67.1	44.4	37.3	42.3	52.9	-12.4	-24.8	8.5	-25.0%	-37.0%	19.1%
11 to 5	Rochester	Tilbury Port	41.4	57.4	43.3	32.9	35.4	55.7	-8.6	-22.0	12.4	-20.7%	-38.3%	28.6%
11 to 6	Rochester	DP World	45.3	61.4	44.2	32.9	36.6	53.8	-12.4	-24.8	9.6	-27.4%	-40.4%	21.7%
12 to 1	Rainham	Cheshunt	91.6	86.2	63.8	87.6	72.0	73.0	-4.0	-14.2	9.2	-4.4%	-16.5%	14.5%
12 to 2	Rainham	Romford	64.8	71.9	54.1	60.8	56.7	64.3	-4.0	-15.3	10.3	-6.2%	-21.2%	19.0%
12 to 3	Rainham	Brentwood	63.3	66.0	57.5	59.2	51.3	69.3	-4.0	-14.7	11.8	-6.4%	-22.3%	20.5%
12 to 4	Rainham	Basildon	67.0	74.0	54.3	54.7	48.3	67.9	-12.3	-25.6	13.6	-18.3%	-34.7%	25.0%
12 to 5	Rainham	Tilbury Port	58.7	64.2	54.8	50.2	41.4	72.7	-8.4	-22.8	17.9	-14.4%	-35.5%	32.7%
12 to 6	Rainham	DP World	62.5	68.3	54.9	50.2	42.7	70.6	-12.3	-25.6	15.7	-19.6%	-37.5%	28.6%

## **D.4 LTAM 2045 Low Growth – Outputs to Economic Assessment**

D.4.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2045 low growth forecast.

### **Matrix Total Comparison**

D.4.2 Table D.55 and Table D.56 show that the VDMs have converged to the desired criteria.

D.4.3 Table D.57 and Table D.58 provide a comparison of the input reference matrices with the VDM output matrices. The SATURN format comparisons are provided for all movements and relevant movements.

**Table D.55 Convergence and Stability Statistics (Low 2045 DM)**

Iteration	% GAP		Cost stability				Flow stability				Totals
	Full model	Subset area	RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%	Trips*
1	12.53%	18.41%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%	78,538,541
2	5.98%	7.99%	0.007	0.359	0.609	99.32%	0.130	0.031	4.352	30.29%	78,963,811
3	2.93%	3.77%	0.002	0.099	0.169	99.98%	0.052	0.015	2.173	59.68%	79,175,492
4	1.45%	1.84%	0.001	0.045	0.100	99.99%	0.025	0.007	1.086	88.61%	79,280,914
5	0.72%	0.92%	0.000	0.022	0.072	99.98%	0.012	0.004	0.543	98.36%	79,333,537
6	0.36%	0.46%	0.000	0.018	0.069	99.98%	0.006	0.002	0.271	99.64%	79,359,800
7	0.18%	0.26%	0.000	0.015	0.051	100.00%	0.003	0.001	0.136	99.91%	79,372,927
8	0.09%	0.14%	0.000	0.011	0.035	100.00%	0.002	0.000	0.068	99.99%	79,379,463
9	0.05%	0.09%	0.000	0.011	0.050	99.99%	0.001	0.000	0.034	100.00%	79,382,763
10	0.03%	0.07%	0.000	0.010	0.049	99.99%	0.001	0.000	0.034	99.97%	79,384,305

*\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report*

**Table D.56 Convergence and Stability Statistics (Low 2045 DS)**

Iteration	% GAP		Cost stability				Flow stability				Totals
	Full Model Rel	Subset Area Rel	RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%	Trips*
1	12.62%	19.43%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%	78,538,541
2	6.00%	8.27%	0.010	0.455	0.723	98.95%	0.175	0.031	4.353	26.63%	78,965,391
3	2.93%	3.88%	0.002	0.104	0.164	99.98%	0.058	0.015	2.173	56.25%	79,177,259
4	1.45%	1.89%	0.001	0.036	0.084	99.99%	0.026	0.007	1.086	85.92%	79,282,786
5	0.72%	0.93%	0.000	0.016	0.061	99.99%	0.013	0.004	0.543	98.28%	79,335,448
6	0.36%	0.48%	0.000	0.010	0.041	100.00%	0.006	0.002	0.271	99.65%	79,361,764
7	0.19%	0.26%	0.000	0.011	0.069	99.98%	0.003	0.001	0.136	99.91%	79,374,875
8	0.10%	0.16%	0.000	0.010	0.068	99.98%	0.002	0.000	0.072	99.95%	79,381,362
9	0.05%	0.10%	0.000	0.009	0.039	99.99%	0.001	0.000	0.035	99.98%	79,384,597
10	0.03%	0.08%	0.000	0.008	0.036	99.99%	0.001	0.000	0.028	99.99%	79,386,306

*\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report*

**Table D.57 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices  
(Low 2045 Reference DM and DS Highway Trips in PCUs)**

Segment	Matrix Type	Time Period	Reference Matrix (Low 2045)	VDM Output Matrix (Low 2045 DM)			VDM Output Matrix (Low 2045 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
HBEB	24Hr PA	N/A	2,803,953	2,807,535	3,582	0.1%	2,807,587	3,634	0.1%
HBW L	24Hr PA	N/A	2,402,696	2,405,789	3,093	0.1%	2,405,813	3,117	0.1%
HBW M	24Hr PA	N/A	4,240,417	4,241,487	1,069	0.0%	4,241,569	1,152	0.0%
HBW H	24Hr PA	N/A	3,316,273	3,310,963	-5,310	-0.2%	3,311,082	-5,191	-0.2%
HBO L	24Hr PA	N/A	7,163,364	7,363,649	200,285	2.8%	7,363,939	200,574	2.8%
HBO M	24Hr PA	N/A	6,431,662	6,522,514	90,852	1.4%	6,522,761	91,099	1.4%
HBO H	24Hr PA	N/A	4,636,401	4,666,482	30,081	0.6%	4,666,716	30,315	0.7%
NHBEB	By Time Period OD	AM	93,897	94,061	164	0.2%	94,120	222	0.2%
		IP	121,618	121,484	-134	-0.1%	121,490	-128	-0.1%
		PM	135,597	134,211	-1,387	-1.0%	134,217	-1,381	-1.0%
		OP	34,250	34,657	406	1.2%	34,645	394	1.2%
NHBO L	By Time Period OD	AM	139,449	143,678	4,228	3.0%	143,782	4,333	3.1%
		IP	369,960	379,588	9,627	2.6%	379,587	9,626	2.6%
		PM	292,209	297,716	5,507	1.9%	297,762	5,553	1.9%
		OP	81,384	84,551	3,167	3.9%	84,533	3,149	3.9%



Segment	Matrix Type	Time Period	Reference Matrix (Low 2045)	VDM Output Matrix (Low 2045 DM)			VDM Output Matrix (Low 2045 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
NHBO M	By Time Period OD	AM	148,374	150,180	1,806	1.2%	150,265	1,891	1.3%
		IP	295,938	300,083	4,145	1.4%	300,117	4,180	1.4%
		PM	293,830	295,369	1,539	0.5%	295,376	1,546	0.5%
		OP	72,803	74,543	1,740	2.4%	74,521	1,718	2.4%
NHBO H	By Time Period OD	AM	119,599	119,908	309	0.3%	119,961	362	0.3%
		IP	202,784	204,030	1,246	0.6%	204,042	1,259	0.6%
		PM	227,876	227,021	-856	-0.4%	227,094	-782	-0.3%
		OP	53,507	54,487	980	1.8%	54,466	959	1.8%
LGV	By Time Period OD	AM	953,410	953,410	0	0.0%	953,410	0	0.0%
		IP	823,326	823,326	0	0.0%	823,326	0	0.0%
		PM	688,065	688,065	0	0.0%	688,065	0	0.0%
		OP	331,922	331,922	0	0.0%	331,922	0	0.0%
HGV	By Time Period OD	AM	125,447	125,447	0	0.0%	125,447	0	0.0%
		IP	140,903	140,903	0	0.0%	140,903	0	0.0%
		PM	81,303	81,303	0	0.0%	81,303	0	0.0%
		OP	55,865	55,865	0	0.0%	55,865	0	0.0%

Segment	Matrix Type	Time Period	Reference Matrix (Low 2045)	VDM Output Matrix (Low 2045 DM)		VDM Output Matrix (Low 2045 DS)			
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Port Trips EB	By Time Period OD	AM	4,293	4,293	0	0.0%	4,293	0	0.0%
		IP	2,978	2,978	0	0.0%	2,978	0	0.0%
		PM	3,737	3,737	0	0.0%	3,737	0	0.0%
		OP	1,147	1,147	0	0.0%	1,147	0	0.0%
Port Trips O LI	By Time Period OD	AM	2,478	2,478	0	0.0%	2,478	0	0.0%
		IP	3,049	3,049	0	0.0%	3,049	0	0.0%
		PM	3,028	3,028	0	0.0%	3,028	0	0.0%
		OP	987	987	0	0.0%	987	0	0.0%
Port Trips O MI	By Time Period OD	AM	2,888	2,888	0	0.0%	2,888	0	0.0%
		IP	3,219	3,219	0	0.0%	3,219	0	0.0%
		PM	3,550	3,550	0	0.0%	3,550	0	0.0%
		OP	1,095	1,095	0	0.0%	1,095	0	0.0%
Port Trips O HI	By Time Period OD	AM	4,095	4,095	0	0.0%	4,095	0	0.0%
		IP	3,425	3,425	0	0.0%	3,425	0	0.0%
		PM	4,533	4,533	0	0.0%	4,533	0	0.0%
		OP	1,310	1,310	0	0.0%	1,310	0	0.0%

**Table D.58 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices  
(Low 2045 Reference DM and DS Hourly PCUs)**

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (Low 2045)	VDM Output Matrix (Low 2045 DM)		VDM Output Matrix (Low 2045 DS)			Reference Matrix (Low 2045)	VDM Output Matrix (Low 2045 DM)		VDM Output Matrix (Low 2045 DS)				
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Employers Business	AM	486,094	487,498	1,404	0.3%	487,613	1,519	0.3%	40,685	41,621	937	2.3%	41,749	1,064	2.6%
	IP	423,741	423,627	-114	0.0%	423,632	-109	0.0%	28,260	28,441	182	0.6%	28,457	198	0.7%
	PM	584,423	581,946	-2,477	-0.4%	581,989	-2,434	-0.4%	41,346	41,266	-80	-0.2%	41,325	-21	0.0%
	OP	167,154	167,969	815	0.5%	167,949	795	0.5%	11,228	11,990	762	6.8%	11,974	747	6.6%
Car Commute Low Income	AM	444,394	441,355	-3,039	-0.7%	441,330	-3,063	-0.7%	32,713	33,287	574	1.8%	33,258	545	1.7%
	IP	202,630	203,963	1,334	0.7%	203,981	1,351	0.7%	18,575	19,008	433	2.3%	19,026	451	2.4%
	PM	508,883	508,318	-565	-0.1%	508,332	-551	-0.1%	34,402	35,138	736	2.1%	35,154	752	2.2%
	OP	80,989	81,616	627	0.8%	81,616	627	0.8%	6,794	7,053	260	3.8%	7,054	260	3.8%
Car Commute Medium Income	AM	894,908	891,453	-3,455	-0.4%	891,550	-3,358	-0.4%	68,592	68,915	323	0.5%	69,013	421	0.6%
	IP	310,723	311,718	995	0.3%	311,714	991	0.3%	28,543	28,837	294	1.0%	28,836	293	1.0%
	PM	973,631	972,904	-727	-0.1%	972,943	-688	-0.1%	68,113	68,466	353	0.5%	68,507	394	0.6%
	OP	124,074	124,639	566	0.5%	124,629	555	0.4%	10,416	10,684	268	2.6%	10,674	258	2.5%
Car Commute	AM	760,274	758,260	-2,014	-0.3%	758,212	-2,062	-0.3%	65,641	65,258	-383	-0.6%	65,212	-429	-0.7%
	IP	221,321	221,076	-245	-0.1%	221,084	-238	-0.1%	24,253	24,235	-19	-0.1%	24,245	-8	0.0%

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (Low 2045)	VDM Output Matrix (Low 2045 DM)		VDM Output Matrix (Low 2045 DS)			Reference Matrix (Low 2045)	VDM Output Matrix (Low 2045 DM)		VDM Output Matrix (Low 2045 DS)				
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
High Income	PM	787,579	785,729	-1,850	-0.2%	785,900	-1,679	-0.2%	66,811	66,066	-745	-1.1%	66,241	-570	-0.9%
	OP	88,321	88,381	61	0.1%	88,376	55	0.1%	8,996	9,125	129	1.4%	9,120	124	1.4%
Car Other Low Income	AM	760,030	783,145	23,116	3.0%	783,435	23,405	3.1%	81,762	84,965	3,203	3.9%	85,320	3,558	4.4%
	IP	1,346,010	1,380,457	34,447	2.6%	1,380,424	34,414	2.6%	113,646	118,128	4,483	3.9%	118,173	4,527	4.0%
	PM	1,318,162	1,348,674	30,512	2.3%	1,348,830	30,668	2.3%	122,213	124,269	2,056	1.7%	124,509	2,297	1.9%
	OP	421,231	435,278	14,047	3.3%	435,222	13,992	3.3%	36,383	39,807	3,424	9.4%	39,766	3,383	9.3%
Car Other Medium Income	AM	811,559	822,196	10,637	1.3%	822,381	10,822	1.3%	90,487	90,990	503	0.6%	91,245	758	0.8%
	IP	1,077,236	1,091,595	14,359	1.3%	1,091,665	14,429	1.3%	105,642	107,379	1,737	1.6%	107,520	1,878	1.8%
	PM	1,329,054	1,341,218	12,164	0.9%	1,341,261	12,206	0.9%	136,064	135,114	-950	-0.7%	135,247	-817	-0.6%
	OP	377,153	384,420	7,267	1.9%	384,370	7,218	1.9%	36,759	38,987	2,227	6.1%	38,946	2,187	5.9%
Car Other High Income	AM	652,085	654,691	2,605	0.4%	654,812	2,727	0.4%	85,929	84,801	-1,128	-1.3%	85,000	-930	-1.1%
	IP	727,626	731,878	4,252	0.6%	731,881	4,255	0.6%	86,329	86,559	229	0.3%	86,625	296	0.3%
	PM	1,013,574	1,014,352	778	0.1%	1,014,599	1,025	0.1%	122,167	119,326	-2,841	-2.3%	119,674	-2,493	-2.0%
	OP	273,227	276,760	3,533	1.3%	276,709	3,483	1.3%	32,157	33,712	1,555	4.8%	33,670	1,513	4.7%

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (Low 2045)	VDM Output Matrix (Low 2045 DM)		VDM Output Matrix (Low 2045 DS)			Reference Matrix (Low 2045)	VDM Output Matrix (Low 2045 DM)		VDM Output Matrix (Low 2045 DS)				
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Total	AM	4,809,344	4,838,598	29,255	0.6%	4,839,334	29,990	0.6%	465,809	469,837	4,028	0.9%	470,797	4,988	1.1%
	IP	4,309,287	4,364,315	55,027	1.3%	4,364,381	55,094	1.3%	405,248	412,587	7,339	1.8%	412,883	7,635	1.9%
	PM	6,515,306	6,553,141	37,835	0.6%	6,553,853	38,547	0.6%	591,116	589,645	-1,472	-0.2%	590,658	-458	-0.1%
	OP	1,532,147	1,559,063	26,915	1.8%	1,558,872	26,725	1.7%	142,733	151,358	8,625	6.0%	151,205	8,472	5.9%
LGV	AM	953,410	953,410	0	0.0%	953,410	0	0.0%	118,665	118,665	0	0.0%	118,665	0	0.0%
	IP	823,326	823,326	0	0.0%	823,326	0	0.0%	89,667	89,667	0	0.0%	89,667	0	0.0%
	PM	688,065	688,065	0	0.0%	688,065	0	0.0%	91,465	91,465	0	0.0%	91,465	0	0.0%
	OP	331,922	331,922	0	0.0%	331,922	0	0.0%	35,584	35,584	0	0.0%	35,584	0	0.0%
HGV	AM	125,447	125,447	0	0.0%	125,447	0	0.0%	51,390	51,390	0	0.0%	51,390	0	0.0%
	IP	140,903	140,903	0	0.0%	140,903	0	0.0%	56,508	56,508	0	0.0%	56,508	0	0.0%
	PM	81,303	81,303	0	0.0%	81,303	0	0.0%	32,473	32,473	0	0.0%	32,473	0	0.0%
	OP	55,865	55,865	0	0.0%	55,865	0	0.0%	22,153	22,153	0	0.0%	22,153	0	0.0%

## Highway Assignment Model (HAM) Convergence Statistics

D.4.4 Table D.59 to Table D.61 provide the highway assignment model convergence statistics for the 2045 low growth DM forecasts. Table D.62 to Table D.64 provide the highway assignment model convergence statistics for the 2045 low growth DS forecasts.

**Table D.59 HAM Convergence Statistics – 2045 Low Growth DM AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
74	0.0035	0.0066	99.0	99.5
75	0.0048	0.0052	98.6	99.4
76	0.0034	0.0068	99.0	99.5
77	0.0048	0.0048	98.7	99.4

**Table D.60 HAM Convergence Statistics – 2045 Low Growth DM Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
35	0.0046	0.0045	98.7	99.6
36	0.0033	0.0055	98.6	99.6
37	0.0031	0.0047	98.5	99.5
38	0.0032	0.0049	98.6	99.6

**Table D.61 HAM Convergence Statistics – 2045 Low Growth DM PM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
60	0.0048	0.0059	98.6	99.3
61	0.0038	0.0057	98.5	99.1
62	0.0037	0.0061	98.7	99.2
63	0.0040	0.0050	98.7	99.3

**Table D.62 HAM Convergence Statistics – 2045 Low Growth DS AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
73	0.0032	0.0063	98.9	99.4
74	0.0055	0.0054	98.9	99.5
75	0.0042	0.0065	98.8	99.4
76	0.0037	0.0058	98.7	99.4

**Table D.63 HAM Convergence Statistics – 2045 Low Growth DS Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
41	0.0031	0.0052	99.0	99.6
42	0.0028	0.0041	98.5	99.5
43	0.0028	0.0047	98.9	99.6
44	0.0038	0.0037	98.8	99.6

**Table D.64 HAM Convergence Statistics – 2045 Low Growth DS PM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
73	0.0033	0.0075	99.0	99.3
74	0.0042	0.0061	98.5	99.2
75	0.0041	0.0061	98.7	99.2
76	0.0034	0.0054	98.5	99.2

D.4.5 These tables demonstrate that the LTAM has achieved the TAG convergence targets in all time periods for this scenario and year.

### Movement Patterns Using the Crossings

D.4.6 Plate D.25 to Plate D.33 provide select link analysis of movements using the Dartford and Lower Thames Crossing for the Do Minimum and Do Something scenarios for each of the model time periods. These diagrams show the pattern of movements using each of the crossings in each of the time periods. Table D.65 to Table D.67 provide a summary of the main corridors using each of the crossings and a comparison between the DM and DS scenarios for each time period.

### Plate D.25 Select Link Analysis – Dartford Crossing DM 2045 Low AM Peak

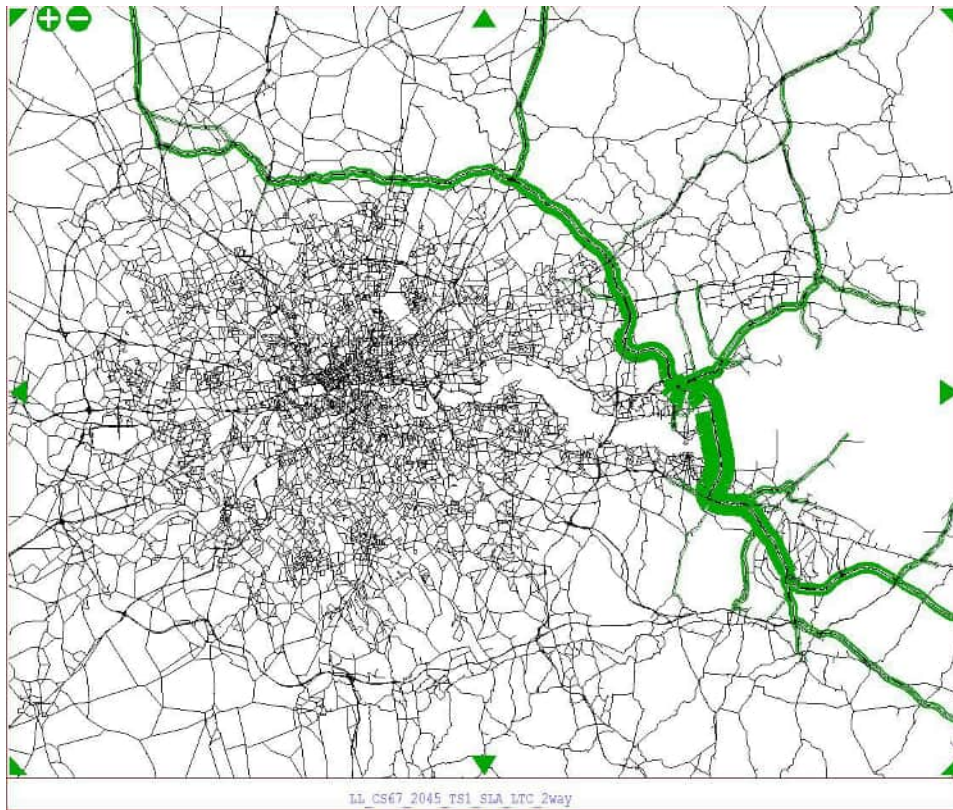


### Plate D.26 Select Link Analysis – Dartford Crossing DS 2045 Low AM Peak





### Plate D.27 Select Link Analysis – Lower Thames Crossing DS 2045 Low AM Peak



**Table D.65 Select Link Analysis – Summary of Primary Corridors of Movement 2045  
Low AM Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,604	17%	3,499	24%	895	34%
	Local (Outside M25)	1,998	13%	1,863	13%	-135	-7%
	M25 South (J2-3)	7,454	48%	7,616	53%	162	2%
	A2/M2 to/from Kent	3,426	22%	1,360	9%	-2065	-60%
Select Link	Dartford Crossing	<b>15,481</b>	<b>100%</b>	<b>14,338</b>	<b>100%</b>	<b>-1143</b>	<b>-7%</b>
North of River	London North	2,256	15%	2,920	20%	664	29%
	Local Traffic	1,508	10%	1,561	11%	53	4%
	M25 North (J30-29)	8,559	55%	7,385	52%	-1174	-14%
	A13 to/from Essex	3,159	20%	2,472	17%	-686	-22%
South of River	Local Traffic	n/a	n/a	816	9%	n/a	n/a
	A2 West of LTC	n/a	n/a	608	7%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	7,219	84%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>8,642</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	799	9%	n/a	n/a
	A13 West of LTC	n/a	n/a	74	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	3,592	42%	n/a	n/a
	M25 North of LTC	n/a	n/a	4,177	48%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

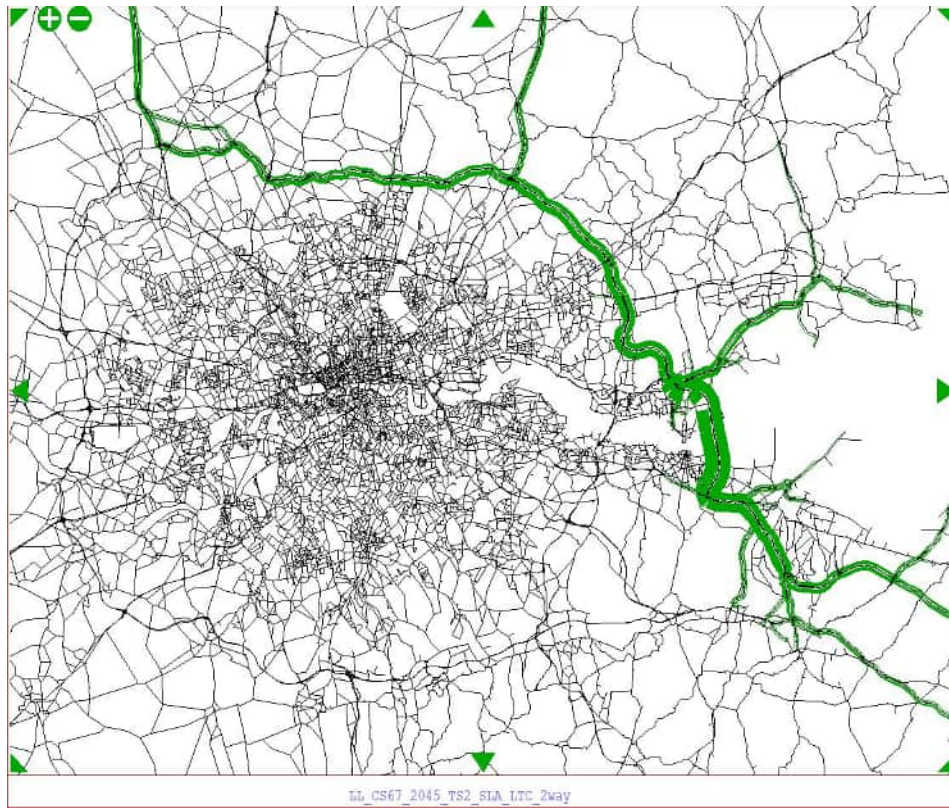
### Plate D.28 Select Link Analysis – Dartford Crossing DM 2045 Low Inter Peak



### Plate D.29 Select Link Analysis – Dartford Crossing DS 2045 Low Inter Peak



**Plate D.30 Select Link Analysis – Lower Thames Crossing DS 2045 Low Inter Peak**



**Table D.66 Select Link Analysis – Summary of Primary Corridors of Movement 2045  
Low Inter Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,260	16%	2,703	23%	443	20%
	Local (Outside M25)	1,451	10%	1,326	11%	-125	-9%
	M25 South (J2-3)	6,916	48%	6,568	55%	-348	-5%
	A2/M2 to/from Kent	3,778	26%	1,298	11%	-2480	-66%
Select Link	Dartford Crossing	<b>14,406</b>	<b>100%</b>	<b>11,895</b>	<b>100%</b>	<b>-2511</b>	<b>-17%</b>
North of River	London North	1,818	13%	2,282	19%	464	26%
	Local Traffic	1,565	11%	1,609	14%	44	3%
	M25 North (J30-29)	7,829	54%	5,635	47%	-2194	-28%
	A13 to/from Essex	3,193	22%	2,368	20%	-825	-26%
South of River	Local Traffic	n/a	n/a	770	11%	n/a	n/a
	A2 West of LTC	n/a	n/a	463	7%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	5,840	83%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>7,073</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	605	9%	n/a	n/a
	A13 West of LTC	n/a	n/a	38	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	2,866	41%	n/a	n/a
	M25 North of LTC	n/a	n/a	3,564	50%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

### Plate D.31 Select Link Analysis – Dartford Crossing DM 2045 Low PM Peak



### Plate D.32 Select Link Analysis – Dartford Crossing DS 2045 Low PM Peak



### Plate D.33 Select Link Analysis – Lower Thames Crossing DS 2045 Low PM Peak



**Table D.67 Select Link Analysis – Summary of Primary Corridors of Movement 2045  
Low PM Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,483	17%	3,075	24%	592	24%
	Local (Outside M25)	1,761	12%	1,563	12%	-198	-11%
	M25 South (J2-3)	6,976	46%	6,788	52%	-189	-3%
	A2/M2 to/from Kent	3,795	25%	1,652	13%	-2143	-56%
Select Link	Dartford Crossing	<b>15,015</b>	<b>100%</b>	<b>13,078</b>	<b>100%</b>	<b>-1938</b>	<b>-13%</b>
North of River	London North	2,468	16%	3,153	24%	684	28%
	Local Traffic	1,491	10%	1,614	12%	123	8%
	M25 North (J30-29)	7,782	52%	5,992	46%	-1790	-23%
	A13 to/from Essex	3,274	22%	2,319	18%	-955	-29%
South of River	Local Traffic	n/a	n/a	1,192	14%	n/a	n/a
	A2 West of LTC	n/a	n/a	767	9%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	6,623	77%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>8,581</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	853	10%	n/a	n/a
	A13 West of LTC	n/a	n/a	59	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	4,060	47%	n/a	n/a
	M25 North of LTC	n/a	n/a	3,609	42%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

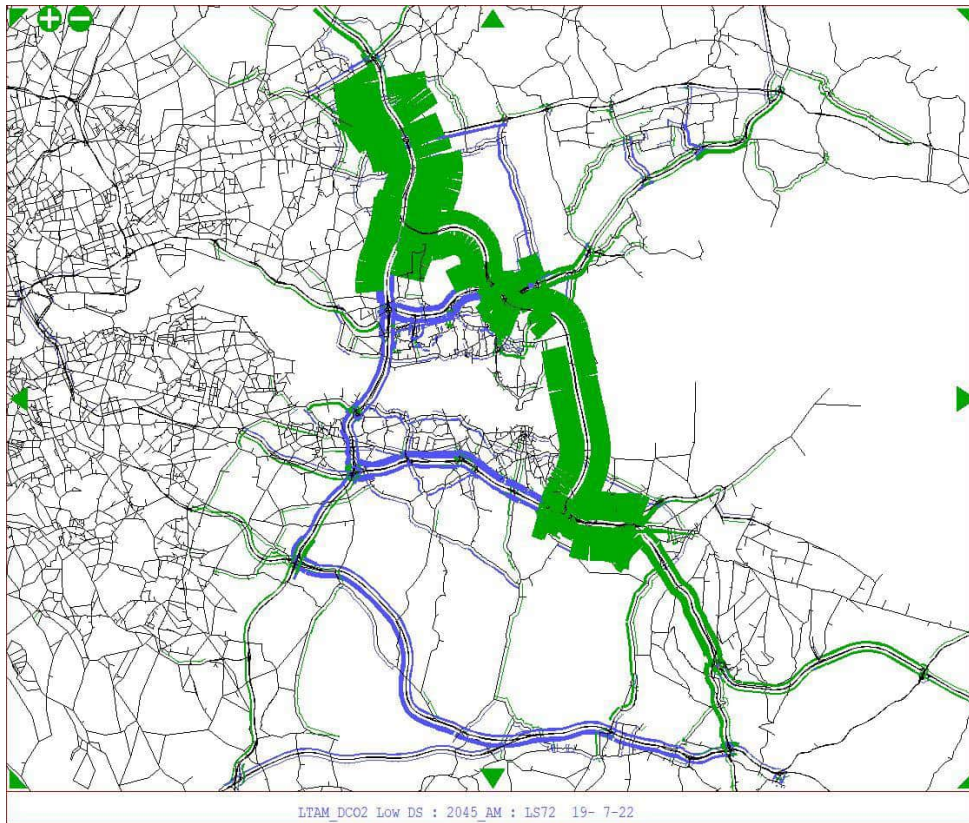
## DM Vs DS Flow Comparisons

D.4.7 The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Plate D.34 to Plate D.36 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCUs per hour have been excluded from the colouring.

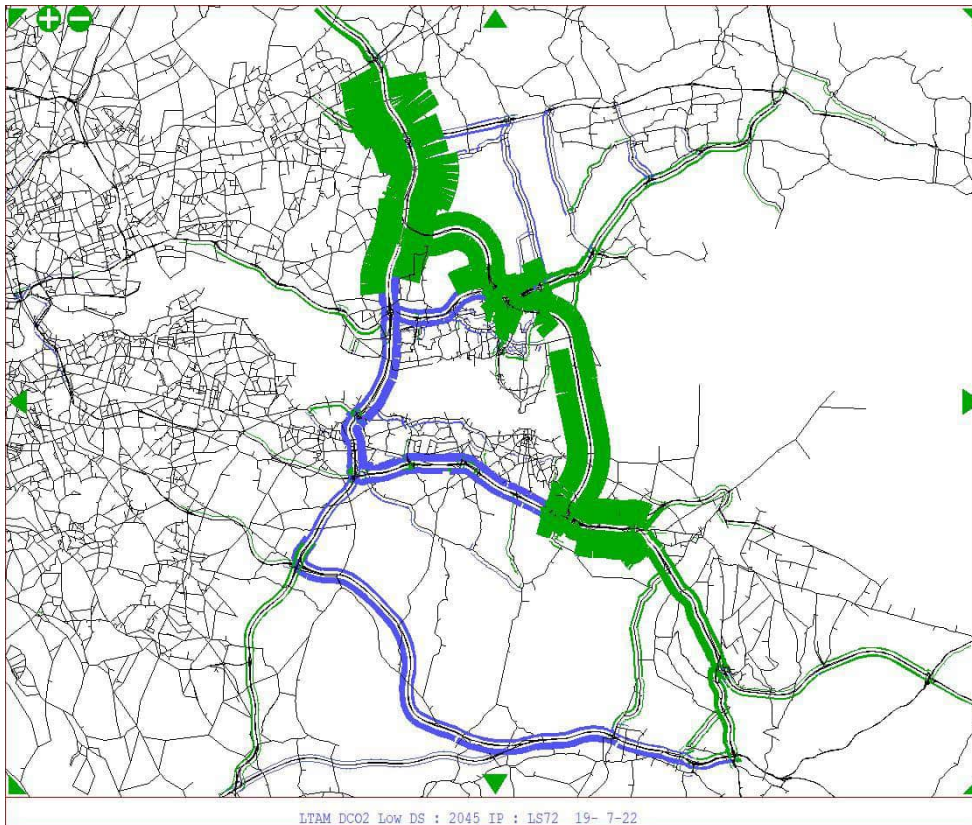
D.4.8 Table D.68 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link approaching the TMC. Table D.69 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link after the TMC.



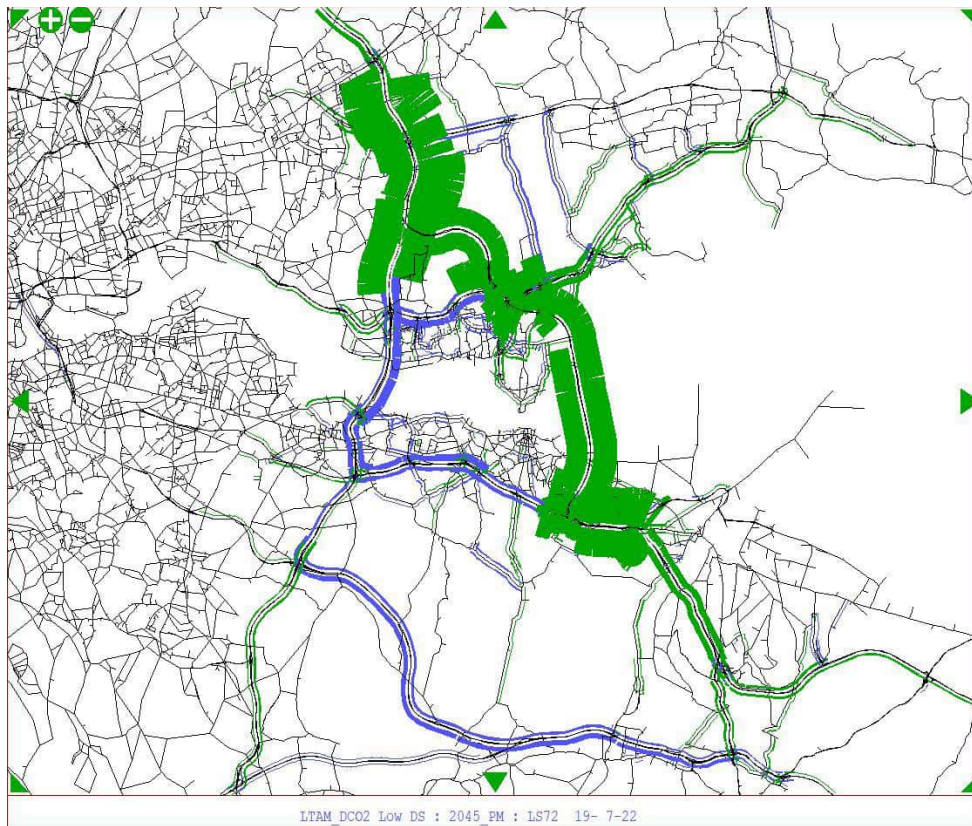
**Plate D.34 Actual Flow Comparison Plot – 2045 Low Growth DM Vs DS AM Peak**



**Plate D.35 Actual Flow Comparison Plot – 2045 Low Growth DM Vs DS Inter Peak**



### Plate D.36 Actual Flow Comparison Plot – 2045 Low Growth DM Vs DS PM Peak



**Table D.68 Cross River Traffic Flows (NB Flows Approaching TMC) – 2045 Low Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,792	3,989	197	5%	1,784	1,710	-74	-4%	2,925	2,464	-461	-16%	8,500	8,163	-337	-4%	8,500	1.00	0.96
		IP	3,750	3,196	-554	-15%	903	752	-151	-17%	2,864	1,941	-924	-32%	7,517	5,889	-1,628	-22%	8,500	0.88	0.69
		PM	5,136	4,385	-751	-15%	1,168	902	-265	-23%	1,949	1,278	-671	-34%	8,252	6,565	-1,687	-20%	8,500	0.97	0.77
	LTC	AM	0	2,512	-	-	0	348	-	-	0	945	-	-	0	3,805	-	-	6,360	-	0.60
		IP	0	1,926	-	-	0	187	-	-	0	994	-	-	0	3,107	-	-	6,360	-	0.49
		PM	0	3,538	-	-	0	326	-	-	0	726	-	-	0	4,590	-	-	6,360	-	0.72
	Total	AM	3,792	6,501	2,709	71%	1,784	2,057	274	15%	2,925	3,410	485	17%	8,500	11,968	3,468	41%	14,860	-	0.81
		IP	3,750	5,122	1,372	37%	903	939	37	4%	2,864	2,934	70	2%	7,517	8,995	1,478	20%	14,860	-	0.61
		PM	5,136	7,923	2,787	54%	1,168	1,228	61	5%	1,949	2,004	55	3%	8,252	11,155	2,903	35%	14,860	-	0.75
NB	Dartford*	AM	3,928	3,563	-365	-9%	1,502	1,068	-434	-29%	2,232	1,542	-690	-31%	7,662	6,173	-1,490	-19%	6,981	1.10	0.88
		IP	3,464	3,257	-207	-6%	982	737	-246	-25%	3,127	2,015	-1,112	-36%	7,573	6,009	-1,564	-21%	6,890	1.10	0.87
		PM	4,805	4,443	-362	-8%	1,036	832	-204	-20%	1,846	1,239	-607	-33%	7,687	6,514	-1,174	-15%	6,762	1.14	0.96
	LTC	AM	0	3,251	-	-	0	604	-	-	0	984	-	-	0	4,839	-	-	6,360	-	0.76
		IP	0	2,316	-	-	0	345	-	-	0	1,306	-	-	0	3,967	-	-	6,360	-	0.62
		PM	0	3,034	-	-	0	283	-	-	0	674	-	-	0	3,991	-	-	6,360	-	0.63
	Total	AM	3,928	6,814	2,885	73%	1,502	1,672	170	11%	2,232	2,526	294	13%	7,662	11,012	3,349	44%	13,341	-	0.83
		IP	3,464	5,573	2,109	61%	982	1,082	99	10%	3,127	3,321	194	6%	7,573	9,975	2,402	32%	13,250	-	0.75
		PM	4,805	7,476	2,671	56%	1,036	1,115	78	8%	1,846	1,913	67	4%	7,687	10,504	2,817	37%	13,122	-	0.80

\* Flows are extracted for the link approaching the TMC

**Table D.69 Cross River Traffic Flows (NB Flows After TMC) – 2045 Low Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,792	3,989	197	5%	1,784	1,710	-74	-4%	2,925	2,464	-461	-16%	8,500	8,163	-337	-4%	8,500	1.00	0.96
		IP	3,750	3,196	-554	-15%	903	752	-151	-17%	2,864	1,941	-924	-32%	7,517	5,889	-1,628	-22%	8,500	0.88	0.69
		PM	5,136	4,385	-751	-15%	1,168	902	-265	-23%	1,949	1,278	-671	-34%	8,252	6,565	-1,687	-20%	8,500	0.97	0.77
	LTC	AM	0	2,512	-	-	0	348	-	-	0	945	-	-	0	3,805	-	-	6,360	-	0.60
		IP	0	1,926	-	-	0	187	-	-	0	994	-	-	0	3,107	-	-	6,360	-	0.49
		PM	0	3,538	-	-	0	326	-	-	0	726	-	-	0	4,590	-	-	6,360	-	0.72
	Total	AM	3,792	6,501	2,709	71%	1,784	2,057	274	15%	2,925	3,410	485	17%	8,500	11,968	3,468	41%	14,860	-	0.81
		IP	3,750	5,122	1,372	37%	903	939	37	4%	2,864	2,934	70	2%	7,517	8,995	1,478	20%	14,860	-	0.61
		PM	5,136	7,923	2,787	54%	1,168	1,228	61	5%	1,949	2,004	55	3%	8,252	11,155	2,903	35%	14,860	-	0.75
NB	Dartford*	AM	3,582	3,563	-19	-1%	1,370	1,068	-301	-22%	2,030	1,542	-488	-24%	6,981	6,173	-809	-12%	6,981	1.00	0.88
		IP	3,152	3,257	105	3%	894	737	-157	-18%	2,844	2,015	-829	-29%	6,890	6,009	-881	-13%	6,890	1.00	0.87
		PM	4,226	4,443	217	5%	912	832	-80	-9%	1,624	1,239	-385	-24%	6,762	6,514	-248	-4%	6,762	1.00	0.96
	LTC	AM	0	3,251	-	-	0	604	-	-	0	984	-	-	0	4,839	-	-	6,360	-	0.76
		IP	0	2,316	-	-	0	345	-	-	0	1,306	-	-	0	3,967	-	-	6,360	-	0.62
		PM	0	3,034	-	-	0	283	-	-	0	674	-	-	0	3,991	-	-	6,360	-	0.63
	Total	AM	3,582	6,814	3,232	90%	1,370	1,672	303	22%	2,030	2,526	496	24%	6,981	11,012	4,031	58%	13,341	-	0.83
		IP	3,152	5,573	2,421	77%	894	1,082	188	21%	2,844	3,321	477	17%	6,890	9,975	3,085	45%	13,250	-	0.75
		PM	4,226	7,476	3,251	77%	912	1,115	203	22%	1,624	1,913	289	18%	6,762	10,504	3,743	55%	13,122	-	0.80

\* Flows are extracted for the link after the TMC

D.4.9 The movements considered critical to understanding the impacts of the scheme are the same as those described in Chapter 8 of the main document. Table D.70 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

**Table D.70 Key Corridor Traffic Flows – 2045 Low Growth DM Vs DS (Hourly Flows in PCUs)**

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	7,659	9,180	0.83	8,918	9,180	0.97	1,258	16%
		IP	6,813	9,180	0.74	7,752	9,180	0.84	939	14%
		PM	6,917	9,180	0.75	7,954	9,180	0.87	1,037	15%
	M25 J28 to M25 J29 (SB)	AM	7,747	9,115	0.85	7,940	9,180	0.86	192	2%
		IP	7,374	9,115	0.81	7,745	9,180	0.84	371	5%
		PM	7,751	9,115	0.85	8,307	9,180	0.90	556	7%
B	M25 J4 to M25 J3 (NB)	AM	5,569	6,850	0.81	5,756	6,850	0.84	187	3%
		IP	5,618	6,850	0.82	5,879	6,850	0.86	261	5%
		PM	6,312	6,850	0.92	6,454	6,850	0.94	142	2%
	M25 J3 to M25 J4 (SB)	AM	6,842	6,850	1.00	6,844	6,850	1.00	2	0%
		IP	5,474	6,850	0.80	5,609	6,850	0.82	135	2%
		PM	5,852	6,850	0.85	6,138	6,850	0.90	286	5%
C	A13 A126 to A1012 (EB)	AM	5,190	6,312	0.82	4,272	6,298	0.68	-918	-18%
		IP	5,129	6,299	0.81	4,349	6,282	0.69	-780	-15%
		PM	5,749	6,266	0.92	5,578	6,237	0.89	-171	-3%
	A13 A1012 to A126 (WB)	AM	6,141	6,360	0.97	5,405	6,360	0.85	-736	-12%
		IP	5,464	6,360	0.86	4,572	6,360	0.72	-892	-16%
		PM	5,942	6,360	0.93	4,859	6,360	0.76	-1,083	-18%
D	A13 Orsett Cock to Manor Way (EB)	AM	5,001	6,370	0.79	5,638	6,370	0.89	636	13%
		IP	4,233	6,370	0.66	4,973	6,370	0.78	740	17%
		PM	4,912	6,370	0.77	5,845	6,370	0.92	933	19%
	A13 Manor Way to Orsett Cock (WB)	AM	5,163	6,220	0.83	5,859	6,220	0.94	696	13%
		IP	4,351	6,220	0.70	5,068	6,220	0.81	718	16%
		PM	4,845	6,220	0.78	5,851	6,220	0.94	1,006	21%

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
E	A2 A227 to Gravesend East (EB)	AM	6,358	9,239	0.69	5,313	9,233	0.58	-1,044	-16%
		IP	6,548	9,194	0.71	5,481	9,188	0.60	-1,066	-16%
		PM	9,042	9,187	0.98	8,635	9,175	0.94	-408	-5%
	A2 Gravesend East to A227 (WB)	AM	7,045	7,255	0.97	6,407	6,999	0.92	-637	-9%
		IP	5,941	7,053	0.84	5,122	6,889	0.74	-818	-14%
		PM	6,134	6,849	0.90	5,679	6,725	0.84	-456	-7%
F	M2 J1 to M2 J2 (EB)	AM	5,525	8,559	0.65	6,460	8,403	0.77	935	17%
		IP	4,747	8,698	0.55	5,549	8,528	0.65	802	17%
		PM	6,460	8,587	0.75	7,724	8,463	0.91	1,264	20%
	M2 J2 to M2 J1 (WB)	AM	6,037	8,804	0.69	7,524	8,601	0.87	1,488	25%
		IP	4,189	8,865	0.47	5,795	8,747	0.66	1,606	38%
		PM	5,363	8,934	0.60	6,474	8,740	0.74	1,111	21%
G	M20 J3 to M20 J4 (EB)	AM	6,026	9,115	0.66	5,661	9,115	0.62	-365	-6%
		IP	5,941	9,115	0.65	5,441	9,115	0.60	-499	-8%
		PM	8,672	9,115	0.95	8,272	9,115	0.91	-399	-5%
	M20 J4 to M20 J3 (WB)	AM	8,697	9,115	0.95	7,974	9,115	0.87	-723	-8%
		IP	5,753	9,115	0.63	4,641	9,115	0.51	-1,111	-19%
		PM	5,955	9,115	0.65	5,146	9,115	0.56	-809	-14%

## DM Vs DS Journey Time Comparisons

- D.4.10 The same link based and route based journey time comparisons introduced under Chapter 8 of the main document are repeated for this year scenario combination.
- D.4.11 The link based journey time comparisons for this scenario are presented in Table D.71 to Table D.73.
- D.4.12 Table D.74 to Table D.79 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

**Table D.71 Link Based Journey Time Scenario Comparison (2045 Low Growth DM Vs DS) AM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	16.8	84.0	23.5	17.3	81.6	0.0	0.5	-2.4	-0.1%	2.9%	-2.9%
	B to D	M25 J29	M25 J2	18.8	20.4	55.2	18.9	15.3	74.0	0.1	-5.2	18.8	0.3%	-25.2%	34.1%
	D to F	M25 J2	M25 J7	37.7	31.0	73.1	37.7	32.7	69.2	0.0	1.8	-3.9	0.0%	5.7%	-5.4%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	25.9	88.2	38.0	26.1	87.5	0.0	0.2	-0.7	0.0%	0.8%	-0.8%
	D to B	M25 J2	M25 J29	18.7	20.3	55.2	18.8	14.2	79.6	0.1	-6.1	24.4	0.6%	-30.2%	44.2%
	B to A	M25 J29	M25 J26	23.2	17.2	81.2	23.1	19.8	70.0	-0.1	2.7	-11.2	-0.3%	15.6%	-13.8%
A13 EB	C to G	M25 J30	A1089	5.2	5.3	59.3	5.3	4.2	74.5	0.0	-1.0	15.2	0.9%	-19.6%	25.6%
	G to H	A1089	A130	15.7	12.8	73.5	15.7	14.1	66.7	-0.1	1.3	-6.8	-0.4%	9.7%	-9.2%
A13 WB	H to G	A130	A1089	15.3	14.8	62.0	15.2	16.2	56.3	-0.1	1.4	-5.8	-0.7%	9.5%	-9.3%
	G to C	A1089	M25 J30	5.5	8.8	37.4	5.6	5.8	58.0	0.1	-3.1	20.7	1.6%	-34.6%	55.3%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	9.5	96.9	15.3	9.0	102.3	0.1	-0.4	5.3	0.5%	-4.8%	5.5%
	I to J	M2 J1	M2 J4	14.7	8.5	103.4	14.7	8.9	99.0	0.0	0.4	-4.5	0.0%	4.5%	-4.3%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	9.2	99.1	15.1	10.2	88.6	-0.1	1.0	-10.5	-0.7%	11.1%	-10.6%
	I to D	M2 J1	M25 J2	14.8	18.1	48.8	14.8	13.1	67.9	0.1	-5.0	19.1	0.6%	-27.7%	39.1%
M20 EB	E to K	M25 J3	M20 J8	35.3	20.5	103.5	35.3	20.3	104.6	0.0	-0.2	1.1	0.0%	-1.1%	1.1%
M20 WB	K to E	M20 J8	M25 J3	35.3	25.2	84.2	35.3	23.3	90.8	0.0	-1.8	6.6	0.0%	-7.3%	7.9%

**Table D.72 Link Based Journey Time Scenario Comparison (2045 Low Growth DM Vs DS) Inter Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	16.1	87.6	23.5	16.6	85.2	0.0	0.4	-2.4	-0.1%	2.7%	-2.7%
	B to D	M25 J29	M25 J2	18.8	14.0	80.6	18.9	12.5	90.9	0.1	-1.6	10.3	0.3%	-11.1%	12.8%
	D to F	M25 J2	M25 J7	37.7	24.9	90.8	37.7	25.0	90.6	0.0	0.1	-0.2	0.0%	0.2%	-0.2%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	25.7	88.7	38.0	26.3	86.6	0.0	0.6	-2.0	0.0%	2.3%	-2.3%
	D to B	M25 J2	M25 J29	18.7	19.2	58.5	18.8	13.5	83.9	0.1	-5.7	25.4	0.6%	-29.9%	43.5%
	B to A	M25 J29	M25 J26	23.2	14.6	95.3	23.1	16.0	86.9	-0.1	1.4	-8.4	-0.3%	9.4%	-8.8%
A13 EB	C to G	M25 J30	A1089	5.2	5.3	58.8	5.3	4.3	73.0	0.0	-1.0	14.3	0.9%	-18.8%	24.3%
	G to H	A1089	A130	15.7	11.5	81.8	15.7	12.7	74.0	-0.1	1.2	-7.8	-0.4%	10.1%	-9.5%
A13 WB	H to G	A130	A1089	15.3	11.4	80.3	15.2	12.4	73.2	-0.1	1.0	-7.1	-0.7%	8.9%	-8.8%
	G to C	A1089	M25 J30	5.5	6.1	53.7	5.6	4.7	71.5	0.1	-1.5	17.8	1.6%	-23.6%	33.1%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	9.5	96.4	15.3	9.0	102.7	0.1	-0.5	6.2	0.5%	-5.6%	6.5%
	I to J	M2 J1	M2 J4	14.7	8.4	105.5	14.7	8.5	103.6	0.0	0.2	-1.9	0.0%	1.8%	-1.8%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	8.5	107.1	15.1	8.8	103.3	-0.1	0.3	-3.8	-0.7%	2.9%	-3.5%
	I to D	M2 J1	M25 J2	14.8	11.3	78.4	14.8	9.1	98.1	0.1	-2.2	19.7	0.6%	-19.6%	25.1%
M20 EB	E to K	M25 J3	M20 J8	35.3	20.2	105.1	35.3	20.0	106.2	0.0	-0.2	1.1	0.0%	-1.0%	1.0%
M20 WB	K to E	M20 J8	M25 J3	35.3	20.3	104.3	35.3	19.9	106.5	0.0	-0.4	2.2	0.0%	-2.1%	2.1%



**Table D.73 Link Based Journey Time Scenario Comparison (2045 Low Growth DM Vs DS) PM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	17.8	79.2	23.5	19.0	74.1	0.0	1.2	-5.1	-0.1%	6.7%	-6.4%
	B to D	M25 J29	M25 J2	18.8	16.8	67.1	18.9	13.3	85.1	0.1	-3.5	18.0	0.3%	-20.9%	26.8%
	D to F	M25 J2	M25 J7	37.7	24.6	92.1	37.7	25.2	89.9	0.0	0.6	-2.3	0.0%	2.5%	-2.4%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	30.0	75.9	38.0	30.9	73.8	0.0	0.9	-2.2	0.0%	2.9%	-2.9%
	D to B	M25 J2	M25 J29	18.7	19.5	57.7	18.8	14.0	80.7	0.1	-5.5	23.0	0.6%	-28.1%	40.0%
	B to A	M25 J29	M25 J26	23.2	14.5	96.0	23.1	15.9	87.5	-0.1	1.4	-8.5	-0.3%	9.4%	-8.9%
A13 EB	C to G	M25 J30	A1089	5.2	8.2	38.2	5.3	5.5	57.2	0.0	-2.7	19.0	0.9%	-32.6%	49.7%
	G to H	A1089	A130	15.7	13.0	72.8	15.7	14.5	64.8	-0.1	1.6	-8.0	-0.4%	12.0%	-11.0%
A13 WB	H to G	A130	A1089	15.3	11.9	76.8	15.2	14.7	61.7	-0.1	2.8	-15.1	-0.7%	23.6%	-19.7%
	G to C	A1089	M25 J30	5.5	7.4	44.6	5.6	5.1	66.3	0.1	-2.3	21.7	1.6%	-31.6%	48.5%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	14.6	62.9	15.3	11.2	82.3	0.1	-3.4	19.4	0.5%	-23.2%	30.9%
	I to J	M2 J1	M2 J4	14.7	9.6	91.6	14.7	11.7	75.2	0.0	2.1	-16.4	0.0%	21.8%	-17.9%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	8.8	103.1	15.1	9.1	99.2	-0.1	0.3	-3.9	-0.7%	3.2%	-3.8%
	I to D	M2 J1	M25 J2	14.8	14.5	61.0	14.8	11.1	80.4	0.1	-3.4	19.4	0.6%	-23.7%	31.8%
M20 EB	E to K	M25 J3	M20 J8	35.3	25.6	82.8	35.3	24.4	86.7	0.0	-1.2	3.9	0.0%	-4.5%	4.7%
M20 WB	K to E	M20 J8	M25 J3	35.3	20.7	102.5	35.3	20.3	104.7	0.0	-0.4	2.1	0.0%	-2.0%	2.1%

**Table D.74 Route Based Journey Time Comparison North to South Movements (2045 Low Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 7	Cheshunt	Bexley	61.8	63.0	58.9	61.8	60.2	61.6	0.0	-2.7	2.7	0.0%	-4.3%	4.6%
1 to 8	Cheshunt	Godstone	91.5	83.4	65.8	91.5	80.6	68.2	0.0	-2.8	2.3	0.0%	-3.4%	3.5%
1 to 9	Cheshunt	Southfleet	62.1	58.5	63.7	62.2	53.6	69.6	0.0	-4.9	5.9	0.0%	-8.4%	9.2%
1 to 10	Cheshunt	Maidstone	88.2	76.0	69.6	83.3	72.1	69.4	-4.8	-4.0	-0.2	-5.5%	-5.2%	-0.3%
1 to 11	Cheshunt	Rochester	74.4	74.5	60.0	70.3	64.3	65.5	-4.2	-10.2	5.6	-5.6%	-13.6%	9.3%
1 to 12	Cheshunt	Rainham	91.4	80.5	68.1	87.3	70.2	74.7	-4.1	-10.3	6.5	-4.5%	-12.8%	9.6%
2 to 7	Romford	Bexley	32.0	53.2	36.1	35.8	48.0	44.8	3.8	-5.2	8.7	11.9%	-9.8%	24.1%
2 to 8	Romford	Godstone	61.7	73.7	50.2	65.5	68.3	57.5	3.8	-5.3	7.3	6.2%	-7.2%	14.5%
2 to 9	Romford	Southfleet	32.3	48.8	39.8	36.2	41.4	52.4	3.8	-7.4	12.7	11.8%	-15.2%	31.8%
2 to 10	Romford	Maidstone	58.3	66.3	52.8	57.3	59.9	57.5	-1.0	-6.5	4.7	-1.7%	-9.7%	8.9%
2 to 11	Romford	Rochester	44.6	64.8	41.3	44.2	52.1	51.0	-0.4	-12.7	9.6	-0.8%	-19.6%	23.3%
2 to 12	Romford	Rainham	61.6	70.8	52.2	61.3	58.0	63.5	-0.3	-12.8	11.2	-0.5%	-18.1%	21.5%
3 to 7	Brentwood	Bexley	33.0	44.5	44.5	32.9	40.0	49.4	-0.1	-4.6	5.0	-0.3%	-10.2%	11.1%
3 to 8	Brentwood	Godstone	62.7	64.9	57.9	62.6	60.3	62.3	-0.1	-4.7	4.4	-0.1%	-7.2%	7.6%
3 to 9	Brentwood	Southfleet	33.3	40.1	49.9	33.2	33.3	59.9	-0.1	-6.7	9.9	-0.3%	-16.8%	19.9%
3 to 10	Brentwood	Maidstone	59.3	57.6	61.8	54.4	51.8	63.0	-4.9	-5.8	1.2	-8.3%	-10.1%	2.0%
3 to 11	Brentwood	Rochester	45.6	56.0	48.8	41.3	44.1	56.3	-4.3	-12.0	7.5	-9.4%	-21.4%	15.3%
3 to 12	Brentwood	Rainham	62.6	62.1	60.5	58.4	49.9	70.2	-4.2	-12.2	9.7	-6.7%	-19.6%	16.0%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
4 to 7	Basildon	Bexley	39.7	55.5	42.9	39.6	51.2	46.4	-0.1	-4.3	3.5	-0.2%	-7.7%	8.1%
4 to 8	Basildon	Godstone	69.4	75.9	54.8	69.3	71.6	58.1	-0.1	-4.4	3.3	-0.1%	-5.7%	6.0%
4 to 9	Basildon	Southfleet	40.0	51.0	47.1	34.9	38.9	53.9	-5.1	-12.2	6.8	-12.8%	-23.9%	14.5%
4 to 10	Basildon	Maidstone	66.0	68.6	57.8	49.1	55.8	52.8	-16.9	-12.8	-5.0	-25.6%	-18.6%	-8.6%
4 to 11	Basildon	Rochester	52.3	67.0	46.8	36.5	48.0	45.7	-15.8	-19.1	-1.2	-30.2%	-28.4%	-2.5%
4 to 12	Basildon	Rainham	69.3	73.0	56.9	53.6	53.8	59.7	-15.7	-19.2	2.8	-22.7%	-26.3%	4.9%
5 to 7	Tilbury Port	Bexley	28.3	40.8	41.6	28.3	35.4	48.0	0.0	-5.5	6.4	0.0%	-13.4%	15.5%
5 to 8	Tilbury Port	Godstone	58.0	61.3	56.8	58.0	55.7	62.5	0.0	-5.6	5.7	0.0%	-9.1%	10.0%
5 to 9	Tilbury Port	Southfleet	28.6	36.4	47.2	27.7	23.0	72.2	-0.9	-13.3	25.0	-3.2%	-36.7%	52.9%
5 to 10	Tilbury Port	Maidstone	54.6	53.9	60.8	41.9	40.0	62.9	-12.7	-13.9	2.1	-23.3%	-25.9%	3.5%
5 to 11	Tilbury Port	Rochester	40.9	52.4	46.9	29.3	32.2	54.7	-11.6	-20.2	7.9	-28.3%	-38.6%	16.8%
5 to 12	Tilbury Port	Rainham	57.9	58.4	59.5	46.4	38.0	73.2	-11.5	-20.4	13.7	-19.9%	-34.9%	23.1%
6 to 7	DP World	Bexley	32.1	44.7	43.1	32.1	39.3	48.9	0.0	-5.4	5.9	0.0%	-12.1%	13.7%
6 to 8	DP World	Godstone	61.8	65.2	56.9	61.8	59.7	62.1	0.0	-5.5	5.2	0.0%	-8.4%	9.2%
6 to 9	DP World	Southfleet	32.4	40.3	48.3	29.0	25.3	68.8	-3.4	-15.0	20.6	-10.4%	-37.2%	42.6%
6 to 10	DP World	Maidstone	58.4	57.8	60.6	43.3	42.2	61.4	-15.2	-15.6	0.8	-26.0%	-26.9%	1.3%
6 to 11	DP World	Rochester	44.7	56.3	47.7	30.7	34.4	53.5	-14.1	-21.9	5.8	-31.4%	-38.8%	12.1%
6 to 12	DP World	Rainham	61.7	62.3	59.4	47.7	40.3	71.1	-14.0	-22.0	11.7	-22.7%	-35.4%	19.6%

**Table D.75 Route Based Journey Time Comparison North to South Movements (2045 Low Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 7	Cheshunt	Bexley	61.9	51.6	72.0	61.9	50.7	73.2	0.0	-0.9	1.2	-0.1%	-1.8%	1.7%
1 to 8	Cheshunt	Godstone	91.6	68.6	80.1	91.5	67.5	81.3	0.0	-1.0	1.2	0.0%	-1.5%	1.5%
1 to 9	Cheshunt	Southfleet	62.2	49.0	76.1	62.2	47.6	78.4	0.0	-1.5	2.3	-0.1%	-3.0%	3.1%
1 to 10	Cheshunt	Maidstone	88.2	65.3	81.0	82.9	61.5	80.8	-5.4	-3.8	-0.2	-6.1%	-5.9%	-0.2%
1 to 11	Cheshunt	Rochester	74.5	62.5	71.5	70.2	57.0	74.0	-4.3	-5.6	2.5	-5.8%	-8.9%	3.5%
1 to 12	Cheshunt	Rainham	91.5	70.1	78.4	87.3	64.4	81.3	-4.2	-5.6	3.0	-4.6%	-8.1%	3.8%
2 to 7	Romford	Bexley	35.6	40.7	52.4	35.6	38.0	56.1	0.0	-2.7	3.7	0.0%	-6.6%	7.1%
2 to 8	Romford	Godstone	65.2	57.7	67.8	65.3	54.9	71.3	0.0	-2.8	3.5	0.0%	-4.9%	5.1%
2 to 9	Romford	Southfleet	35.9	38.2	56.4	35.9	34.9	61.7	0.0	-3.3	5.3	0.0%	-8.6%	9.4%
2 to 10	Romford	Maidstone	61.9	54.5	68.2	56.6	48.9	69.5	-5.3	-5.6	1.3	-8.6%	-10.3%	1.9%
2 to 11	Romford	Rochester	48.2	51.7	56.0	44.0	44.3	59.5	-4.3	-7.4	3.5	-8.8%	-14.3%	6.3%
2 to 12	Romford	Rainham	65.2	59.2	66.0	61.0	51.8	70.7	-4.1	-7.4	4.7	-6.3%	-12.6%	7.1%
3 to 7	Brentwood	Bexley	33.0	33.7	58.7	32.9	31.9	61.9	-0.1	-1.8	3.2	-0.3%	-5.4%	5.4%
3 to 8	Brentwood	Godstone	62.7	50.7	74.1	62.6	48.8	77.0	-0.1	-1.9	2.8	-0.1%	-3.8%	3.8%
3 to 9	Brentwood	Southfleet	33.3	31.2	64.1	33.2	28.8	69.2	-0.1	-2.4	5.1	-0.3%	-7.7%	8.0%
3 to 10	Brentwood	Maidstone	59.3	47.5	75.0	53.9	42.7	75.7	-5.4	-4.7	0.7	-9.1%	-10.0%	0.9%
3 to 11	Brentwood	Rochester	45.6	44.7	61.3	41.3	38.2	64.8	-4.4	-6.5	3.6	-9.5%	-14.5%	5.8%
3 to 12	Brentwood	Rainham	62.6	52.2	71.9	58.4	45.7	76.7	-4.2	-6.6	4.8	-6.7%	-12.6%	6.7%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
4 to 7	Basildon	Bexley	39.7	37.8	63.1	39.6	35.8	66.4	-0.1	-2.0	3.4	-0.2%	-5.3%	5.3%
4 to 8	Basildon	Godstone	69.4	54.8	76.0	69.3	52.7	78.9	-0.1	-2.1	2.9	-0.1%	-3.8%	3.8%
4 to 9	Basildon	Southfleet	40.0	35.3	68.1	33.8	28.1	72.2	-6.3	-7.2	4.1	-15.7%	-20.4%	6.0%
4 to 10	Basildon	Maidstone	66.0	51.5	76.9	48.0	40.6	71.0	-18.1	-11.0	-5.9	-27.4%	-21.3%	-7.7%
4 to 11	Basildon	Rochester	52.4	48.8	64.4	35.3	36.0	58.9	-17.0	-12.7	-5.6	-32.5%	-26.1%	-8.6%
4 to 12	Basildon	Rainham	69.3	56.3	73.9	52.4	43.5	72.4	-16.9	-12.8	-1.5	-24.4%	-22.8%	-2.1%
5 to 7	Tilbury Port	Bexley	28.3	30.0	56.7	28.3	27.4	62.0	0.0	-2.5	5.3	0.0%	-8.5%	9.3%
5 to 8	Tilbury Port	Godstone	58.0	46.9	74.1	58.0	44.3	78.6	0.0	-2.6	4.4	0.0%	-5.6%	6.0%
5 to 9	Tilbury Port	Southfleet	28.6	27.4	62.6	27.7	19.4	85.8	-0.9	-8.0	23.2	-3.2%	-29.3%	37.0%
5 to 10	Tilbury Port	Maidstone	54.6	43.7	75.0	41.9	31.9	78.9	-12.7	-11.8	3.9	-23.3%	-27.0%	5.1%
5 to 11	Tilbury Port	Rochester	41.0	40.9	60.0	29.3	27.3	64.3	-11.7	-13.6	4.2	-28.5%	-33.2%	7.0%
5 to 12	Tilbury Port	Rainham	57.9	48.4	71.7	46.4	34.8	80.0	-11.5	-13.6	8.2	-19.9%	-28.2%	11.5%
6 to 7	DP World	Bexley	32.1	33.5	57.5	32.1	31.3	61.5	0.0	-2.2	3.9	0.0%	-6.5%	6.9%
6 to 8	DP World	Godstone	61.8	50.5	73.4	61.8	48.2	76.9	0.0	-2.3	3.4	0.0%	-4.5%	4.7%
6 to 9	DP World	Southfleet	32.4	31.0	62.8	29.0	21.7	80.2	-3.4	-9.2	17.4	-10.4%	-29.8%	27.7%
6 to 10	DP World	Maidstone	58.4	47.2	74.2	43.2	34.2	75.8	-15.2	-13.0	1.6	-26.0%	-27.6%	2.1%
6 to 11	DP World	Rochester	44.7	44.5	60.4	30.6	29.7	61.9	-14.1	-14.8	1.5	-31.6%	-33.2%	2.5%
6 to 12	DP World	Rainham	61.7	52.0	71.2	47.7	37.1	77.1	-14.0	-14.8	5.8	-22.7%	-28.5%	8.2%

**Table D.76 Route Based Journey Time Comparison North to South Movements (2045 Low Growth DM Vs DS) PM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 7	Cheshunt	Bexley	61.9	60.5	61.3	61.9	58.9	63.0	0.0	-1.6	1.7	0.0%	-2.7%	2.7%
1 to 8	Cheshunt	Godstone	91.6	75.3	73.0	91.6	73.6	74.7	0.0	-1.7	1.7	0.0%	-2.3%	2.3%
1 to 9	Cheshunt	Southfleet	60.8	57.2	63.8	62.2	53.7	69.5	1.4	-3.5	5.7	2.3%	-6.1%	9.0%
1 to 10	Cheshunt	Maidstone	88.2	77.3	68.5	82.9	72.6	68.5	-5.3	-4.7	0.0	-6.1%	-6.0%	0.0%
1 to 11	Cheshunt	Rochester	75.0	76.8	58.6	70.8	67.7	62.8	-4.1	-9.1	4.2	-5.5%	-11.9%	7.2%
1 to 12	Cheshunt	Rainham	91.5	90.5	60.7	87.3	81.3	64.5	-4.1	-9.2	3.8	-4.5%	-10.2%	6.3%
2 to 7	Romford	Bexley	36.0	51.7	41.7	35.9	46.6	46.2	-0.1	-5.1	4.5	-0.2%	-9.9%	10.8%
2 to 8	Romford	Godstone	65.7	66.5	59.2	65.6	61.3	64.2	-0.1	-5.2	5.0	-0.1%	-7.9%	8.4%
2 to 9	Romford	Southfleet	34.9	48.4	43.2	36.2	41.4	52.5	1.3	-7.0	9.3	3.9%	-14.5%	21.5%
2 to 10	Romford	Maidstone	62.3	68.5	54.6	56.9	60.3	56.6	-5.4	-8.2	2.0	-8.7%	-11.9%	3.7%
2 to 11	Romford	Rochester	49.1	68.0	43.3	44.9	55.4	48.6	-4.2	-12.6	5.3	-8.6%	-18.6%	12.3%
2 to 12	Romford	Rainham	65.6	81.7	48.2	61.4	68.9	53.4	-4.2	-12.7	5.3	-6.4%	-15.6%	10.9%
3 to 7	Brentwood	Bexley	33.0	41.1	48.2	32.9	38.0	52.0	-0.1	-3.1	3.8	-0.3%	-7.5%	7.9%
3 to 8	Brentwood	Godstone	62.7	55.9	67.3	62.6	52.7	71.3	-0.1	-3.2	4.0	-0.1%	-5.7%	5.9%
3 to 9	Brentwood	Southfleet	31.9	37.7	50.7	33.2	32.8	60.9	1.3	-5.0	10.1	4.2%	-13.2%	20.0%
3 to 10	Brentwood	Maidstone	59.3	57.8	61.6	53.9	51.7	62.6	-5.4	-6.1	1.0	-9.1%	-10.6%	1.7%
3 to 11	Brentwood	Rochester	46.1	57.3	48.2	41.9	46.8	53.7	-4.2	-10.6	5.5	-9.2%	-18.4%	11.4%
3 to 12	Brentwood	Rainham	62.6	71.0	52.9	58.4	60.3	58.1	-4.2	-10.7	5.2	-6.7%	-15.1%	9.8%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
4 to 7	Basildon	Bexley	36.8	46.2	47.9	36.8	42.8	51.7	0.0	-3.4	3.8	-0.1%	-7.4%	7.9%
4 to 8	Basildon	Godstone	66.5	60.9	65.5	66.5	57.4	69.5	0.0	-3.5	4.0	0.0%	-5.7%	6.1%
4 to 9	Basildon	Southfleet	35.7	42.8	50.1	33.8	30.8	65.9	-2.0	-12.1	15.8	-5.5%	-28.2%	31.6%
4 to 10	Basildon	Maidstone	63.2	62.9	60.3	48.0	47.8	60.2	-15.2	-15.1	0.0	-24.1%	-24.1%	0.0%
4 to 11	Basildon	Rochester	49.9	62.4	48.0	35.9	42.8	50.3	-14.0	-19.6	2.3	-28.1%	-31.4%	4.8%
4 to 12	Basildon	Rainham	66.4	76.1	52.4	52.4	56.4	55.8	-14.0	-19.7	3.4	-21.1%	-25.9%	6.5%
5 to 7	Tilbury Port	Bexley	28.3	36.2	46.9	28.3	31.2	54.4	0.0	-5.0	7.5	0.0%	-13.8%	16.0%
5 to 8	Tilbury Port	Godstone	58.0	51.0	68.3	58.0	45.9	75.9	0.0	-5.1	7.6	0.0%	-10.0%	11.1%
5 to 9	Tilbury Port	Southfleet	27.2	32.9	49.7	27.7	20.8	80.1	0.5	-12.1	30.4	1.9%	-36.8%	61.3%
5 to 10	Tilbury Port	Maidstone	54.6	52.9	61.9	41.9	37.8	66.6	-12.7	-15.2	4.7	-23.3%	-28.7%	7.5%
5 to 11	Tilbury Port	Rochester	41.4	52.5	47.3	29.9	32.8	54.6	-11.5	-19.6	7.2	-27.9%	-37.4%	15.3%
5 to 12	Tilbury Port	Rainham	57.9	66.2	52.5	46.4	46.4	60.0	-11.5	-19.7	7.5	-19.9%	-29.8%	14.2%
6 to 7	DP World	Bexley	32.1	40.0	48.1	32.1	37.0	52.0	0.0	-3.0	3.9	-0.1%	-7.5%	8.1%
6 to 8	DP World	Godstone	61.8	54.8	67.6	61.8	51.7	71.7	0.0	-3.1	4.1	0.0%	-5.7%	6.0%
6 to 9	DP World	Southfleet	31.0	36.7	50.7	29.0	25.0	69.7	-2.0	-11.7	19.0	-6.3%	-31.8%	37.4%
6 to 10	DP World	Maidstone	58.4	56.8	61.8	43.2	42.0	61.7	-15.2	-14.8	0.0	-26.0%	-26.0%	0.0%
6 to 11	DP World	Rochester	45.2	56.3	48.2	31.2	37.1	50.4	-14.0	-19.2	2.3	-31.0%	-34.1%	4.7%
6 to 12	DP World	Rainham	61.7	70.0	52.9	47.7	50.7	56.5	-14.0	-19.3	3.6	-22.7%	-27.6%	6.8%

**Table D.77 Route Based Journey Time Comparison South to North Movements (2045 Low Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
7 to 1	Bexley	Cheshunt	61.6	59.1	62.5	61.6	55.8	66.2	0.0	-3.3	3.7	0.1%	-5.6%	5.9%
7 to 2	Bexley	Romford	34.7	45.7	45.5	34.7	39.4	52.9	0.0	-6.3	7.3	0.0%	-13.9%	16.0%
7 to 3	Bexley	Brentwood	33.1	41.2	48.2	33.2	36.4	54.6	0.0	-4.8	6.4	0.0%	-11.6%	13.2%
7 to 4	Bexley	Basildon	36.8	43.2	51.1	36.8	36.6	60.4	0.0	-6.6	9.2	-0.1%	-15.4%	18.1%
7 to 5	Bexley	Tilbury Port	28.6	36.2	47.4	28.6	28.8	59.6	0.0	-7.4	12.2	0.0%	-20.5%	25.7%
7 to 6	Bexley	DP World	32.4	39.2	49.6	32.4	32.7	59.4	0.0	-6.5	9.8	-0.1%	-16.6%	19.8%
8 to 1	Godstone	Cheshunt	91.8	80.4	68.5	91.8	77.4	71.2	0.0	-2.9	2.6	0.1%	-3.7%	3.9%
8 to 2	Godstone	Romford	64.9	67.0	58.1	64.9	61.0	63.9	0.0	-6.0	5.7	0.0%	-9.0%	9.8%
8 to 3	Godstone	Brentwood	63.3	62.5	60.8	63.4	58.0	65.5	0.0	-4.5	4.7	0.0%	-7.1%	7.7%
8 to 4	Godstone	Basildon	67.0	64.5	62.4	67.0	58.2	69.1	0.0	-6.3	6.7	0.0%	-9.8%	10.8%
8 to 5	Godstone	Tilbury Port	58.7	57.4	61.4	58.7	50.3	70.0	0.0	-7.1	8.6	0.0%	-12.3%	14.1%
8 to 6	Godstone	DP World	62.6	60.4	62.2	62.6	54.3	69.2	0.0	-6.2	7.0	0.0%	-10.2%	11.3%
9 to 1	Southfleet	Cheshunt	60.7	58.9	61.8	60.8	54.1	67.4	0.0	-4.8	5.6	0.1%	-8.2%	9.0%
9 to 2	Southfleet	Romford	33.8	45.5	44.6	33.8	37.7	53.9	0.0	-7.9	9.3	0.0%	-17.3%	21.0%
9 to 3	Southfleet	Brentwood	32.3	41.1	47.2	32.3	34.7	55.9	0.0	-6.4	8.7	0.1%	-15.5%	18.4%
9 to 4	Southfleet	Basildon	36.0	43.1	50.1	35.8	29.8	72.2	-0.1	-13.3	22.0	-0.4%	-30.8%	44.0%
9 to 5	Southfleet	Tilbury Port	27.7	36.0	46.2	31.4	25.5	74.0	3.7	-10.5	27.8	13.4%	-29.2%	60.2%
9 to 6	Southfleet	DP World	31.5	39.0	48.5	31.4	25.9	72.8	-0.1	-13.1	24.3	-0.4%	-33.6%	50.0%



Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
10 to 1	Maidstone	Cheshunt	88.3	80.0	66.2	83.3	70.4	71.0	-5.0	-9.6	4.8	-5.6%	-12.0%	7.3%
10 to 2	Maidstone	Romford	61.4	66.6	55.3	56.4	53.7	62.9	-5.0	-12.9	7.7	-8.2%	-19.4%	13.9%
10 to 3	Maidstone	Brentwood	59.8	62.1	57.8	54.3	50.9	64.0	-5.5	-11.2	6.2	-9.2%	-18.1%	10.8%
10 to 4	Maidstone	Basildon	63.5	64.2	59.4	50.3	43.4	69.6	-13.2	-20.8	10.2	-20.8%	-32.4%	17.2%
10 to 5	Maidstone	Tilbury Port	55.2	57.1	58.0	45.9	39.0	70.5	-9.4	-18.1	12.5	-16.9%	-31.6%	21.5%
10 to 6	Maidstone	DP World	59.1	60.1	59.0	45.9	39.4	69.8	-13.2	-20.6	10.8	-22.3%	-34.3%	18.3%
11 to 1	Rochester	Cheshunt	76.2	83.2	55.0	70.3	66.4	63.5	-5.9	-16.8	8.6	-7.8%	-20.2%	15.6%
11 to 2	Rochester	Romford	49.3	69.8	42.4	43.4	49.7	52.3	-6.0	-20.1	9.9	-12.1%	-28.8%	23.4%
11 to 3	Rochester	Brentwood	47.8	65.4	43.9	41.3	46.9	52.8	-6.5	-18.4	9.0	-13.6%	-28.2%	20.4%
11 to 4	Rochester	Basildon	51.5	67.4	45.9	37.3	39.4	56.9	-14.2	-28.0	11.0	-27.5%	-41.6%	24.0%
11 to 5	Rochester	Tilbury Port	43.2	60.3	43.0	32.9	35.0	56.3	-10.3	-25.3	13.3	-23.9%	-41.9%	30.9%
11 to 6	Rochester	DP World	47.0	63.3	44.6	32.9	35.4	55.6	-14.2	-27.9	11.0	-30.1%	-44.0%	24.8%
12 to 1	Rainham	Cheshunt	91.7	96.2	57.2	87.7	79.4	66.2	-4.0	-16.8	9.0	-4.4%	-17.4%	15.8%
12 to 2	Rainham	Romford	64.8	82.9	46.9	60.7	62.8	58.0	-4.1	-20.1	11.1	-6.3%	-24.2%	23.6%
12 to 3	Rainham	Brentwood	63.3	78.4	48.4	58.7	60.0	58.7	-4.6	-18.4	10.3	-7.2%	-23.5%	21.2%
12 to 4	Rainham	Basildon	67.0	80.4	50.0	54.7	52.4	62.6	-12.3	-28.0	12.6	-18.3%	-34.8%	25.2%
12 to 5	Rainham	Tilbury Port	58.7	73.3	48.0	50.2	48.1	62.7	-8.4	-25.2	14.7	-14.4%	-34.4%	30.5%
12 to 6	Rainham	DP World	62.5	76.3	49.2	50.2	48.5	62.2	-12.3	-27.8	13.0	-19.6%	-36.4%	26.4%

**Table D.78 Route Based Journey Time Comparison South to North Movements (2045 Low Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
7 to 1	Bexley	Cheshunt	61.6	54.6	67.7	61.6	50.9	72.7	0.0	-3.7	5.0	0.1%	-6.8%	7.4%
7 to 2	Bexley	Romford	35.8	40.4	53.2	35.8	35.2	61.1	0.0	-5.2	7.9	0.0%	-12.9%	14.8%
7 to 3	Bexley	Brentwood	33.2	38.2	52.1	33.2	33.0	60.3	0.0	-5.2	8.2	0.1%	-13.5%	15.8%
7 to 4	Bexley	Basildon	36.8	41.8	52.8	36.8	35.7	61.9	0.0	-6.1	9.0	-0.1%	-14.6%	17.1%
7 to 5	Bexley	Tilbury Port	28.6	37.4	45.8	28.6	31.5	54.3	0.0	-5.9	8.5	0.0%	-15.7%	18.6%
7 to 6	Bexley	DP World	32.4	37.7	51.6	32.4	31.3	62.1	0.0	-6.4	10.5	-0.1%	-17.0%	20.4%
8 to 1	Godstone	Cheshunt	91.8	75.3	73.2	91.8	71.7	76.8	0.0	-3.5	3.7	0.1%	-4.7%	5.0%
8 to 2	Godstone	Romford	66.0	61.0	64.9	66.0	56.0	70.7	0.0	-5.1	5.9	0.0%	-8.3%	9.0%
8 to 3	Godstone	Brentwood	63.3	58.8	64.6	63.4	53.8	70.6	0.1	-5.0	6.1	0.1%	-8.5%	9.4%
8 to 4	Godstone	Basildon	67.0	62.5	64.3	67.0	56.6	71.1	0.0	-6.0	6.8	0.0%	-9.5%	10.5%
8 to 5	Godstone	Tilbury Port	58.8	58.1	60.7	58.8	52.4	67.3	0.0	-5.7	6.6	0.0%	-9.9%	10.9%
8 to 6	Godstone	DP World	62.6	58.3	64.4	62.6	52.1	72.1	0.0	-6.2	7.7	0.0%	-10.7%	12.0%
9 to 1	Southfleet	Cheshunt	60.7	54.8	66.5	60.8	49.1	74.2	0.0	-5.7	7.8	0.1%	-10.4%	11.7%
9 to 2	Southfleet	Romford	35.0	40.6	51.6	35.0	33.4	62.8	0.0	-7.2	11.1	0.0%	-17.7%	21.5%
9 to 3	Southfleet	Brentwood	32.3	38.4	50.4	32.3	31.3	62.0	0.0	-7.1	11.6	0.2%	-18.6%	23.0%
9 to 4	Southfleet	Basildon	36.0	42.1	51.3	35.8	28.7	75.0	-0.1	-13.4	23.7	-0.4%	-31.9%	46.2%
9 to 5	Southfleet	Tilbury Port	27.7	37.7	44.1	31.4	27.9	67.5	3.7	-9.7	23.4	13.4%	-25.9%	52.9%
9 to 6	Southfleet	DP World	31.5	37.9	49.9	31.4	24.2	77.8	-0.1	-13.7	27.9	-0.4%	-36.1%	55.9%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
10 to 1	Maidstone	Cheshunt	88.3	70.8	74.8	83.3	62.4	80.2	-5.0	-8.4	5.3	-5.6%	-11.9%	7.1%
10 to 2	Maidstone	Romford	62.5	56.6	66.3	57.5	46.6	74.0	-5.0	-10.0	7.8	-8.0%	-17.7%	11.7%
10 to 3	Maidstone	Brentwood	59.8	54.4	66.0	54.9	44.2	74.5	-4.9	-10.2	8.5	-8.3%	-18.7%	12.8%
10 to 4	Maidstone	Basildon	63.5	58.0	65.7	50.3	39.7	76.1	-13.2	-18.4	10.4	-20.8%	-31.6%	15.9%
10 to 5	Maidstone	Tilbury Port	55.2	53.6	61.8	45.9	38.9	70.8	-9.4	-14.7	8.9	-16.9%	-27.4%	14.4%
10 to 6	Maidstone	DP World	59.1	53.9	65.8	45.9	35.2	78.2	-13.2	-18.7	12.4	-22.3%	-34.6%	18.8%
11 to 1	Rochester	Cheshunt	74.5	71.2	62.8	70.3	58.4	72.2	-4.2	-12.8	9.4	-5.6%	-17.9%	15.0%
11 to 2	Rochester	Romford	48.7	57.0	51.3	44.5	42.6	62.6	-4.2	-14.3	11.3	-8.7%	-25.2%	22.0%
11 to 3	Rochester	Brentwood	46.0	54.7	50.4	41.9	40.2	62.4	-4.2	-14.5	12.0	-9.0%	-26.5%	23.7%
11 to 4	Rochester	Basildon	49.7	58.4	51.1	37.3	35.7	62.7	-12.4	-22.7	11.6	-25.0%	-38.9%	22.8%
11 to 5	Rochester	Tilbury Port	41.4	54.0	46.0	32.9	35.0	56.4	-8.6	-19.0	10.4	-20.7%	-35.3%	22.5%
11 to 6	Rochester	DP World	45.3	54.3	50.1	32.9	31.3	63.1	-12.4	-23.0	13.0	-27.4%	-42.4%	26.0%
12 to 1	Rainham	Cheshunt	91.7	78.5	70.1	87.7	65.6	80.1	-4.0	-12.9	10.1	-4.4%	-16.4%	14.4%
12 to 2	Rainham	Romford	65.9	64.3	61.5	61.8	49.9	74.4	-4.1	-14.5	12.9	-6.2%	-22.5%	21.0%
12 to 3	Rainham	Brentwood	63.3	62.1	61.1	59.2	47.5	74.9	-4.0	-14.6	13.7	-6.4%	-23.5%	22.5%
12 to 4	Rainham	Basildon	67.0	65.8	61.1	54.7	42.9	76.4	-12.3	-22.8	15.3	-18.3%	-34.7%	25.1%
12 to 5	Rainham	Tilbury Port	58.7	61.3	57.4	50.2	42.2	71.5	-8.4	-19.2	14.1	-14.4%	-31.2%	24.5%
12 to 6	Rainham	DP World	62.5	61.6	60.9	50.2	38.5	78.3	-12.3	-23.1	17.4	-19.6%	-37.5%	28.6%

**Table D.79 Route Based Journey Time Comparison South to North Movements (2045 Low Growth DM Vs DS) PM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
7 to 1	Bexley	Cheshunt	61.5	60.9	60.5	61.5	57.0	64.7	0.1	-3.9	4.2	0.1%	-6.4%	6.9%
7 to 2	Bexley	Romford	34.9	46.8	44.8	34.8	41.6	50.2	-0.1	-5.1	5.4	-0.3%	-11.0%	12.0%
7 to 3	Bexley	Brentwood	33.1	40.2	49.5	33.2	35.4	56.2	0.0	-4.8	6.7	0.1%	-11.8%	13.6%
7 to 4	Bexley	Basildon	36.8	48.7	45.4	36.8	41.7	53.0	0.0	-7.0	7.6	0.0%	-14.4%	16.8%
7 to 5	Bexley	Tilbury Port	28.6	38.7	44.2	28.6	30.7	55.8	0.0	-8.0	11.6	0.0%	-20.7%	26.1%
7 to 6	Bexley	DP World	32.4	42.9	45.3	32.4	35.9	54.1	0.0	-7.0	8.8	0.0%	-16.2%	19.4%
8 to 1	Godstone	Cheshunt	91.1	84.2	64.9	91.2	81.1	67.4	0.1	-3.1	2.5	0.1%	-3.7%	3.9%
8 to 2	Godstone	Romford	64.6	70.0	55.3	64.5	65.7	58.9	-0.1	-4.3	3.5	-0.2%	-6.2%	6.4%
8 to 3	Godstone	Brentwood	62.8	63.5	59.4	62.8	59.5	63.3	0.0	-3.9	4.0	0.1%	-6.2%	6.7%
8 to 4	Godstone	Basildon	66.5	72.0	55.4	66.5	65.8	60.6	0.0	-6.2	5.2	0.0%	-8.6%	9.4%
8 to 5	Godstone	Tilbury Port	58.2	62.0	56.3	58.2	54.8	63.7	0.0	-7.2	7.4	0.0%	-11.6%	13.1%
8 to 6	Godstone	DP World	62.0	66.2	56.3	62.0	60.0	62.0	0.0	-6.2	5.8	0.0%	-9.3%	10.2%
9 to 1	Southfleet	Cheshunt	60.6	58.9	61.7	60.7	54.1	67.3	0.1	-4.8	5.5	0.1%	-8.1%	8.9%
9 to 2	Southfleet	Romford	34.1	44.7	45.7	34.0	38.7	52.6	-0.1	-6.0	6.9	-0.3%	-13.4%	15.1%
9 to 3	Southfleet	Brentwood	32.3	38.2	50.7	32.3	32.5	59.6	0.0	-5.6	8.9	0.1%	-14.8%	17.5%
9 to 4	Southfleet	Basildon	36.0	46.7	46.2	36.2	32.8	66.2	0.2	-13.9	20.0	0.6%	-29.8%	43.2%
9 to 5	Southfleet	Tilbury Port	27.7	36.7	45.3	31.7	25.7	74.2	4.0	-11.1	29.0	14.6%	-30.1%	64.0%
9 to 6	Southfleet	DP World	31.5	40.8	46.3	31.7	27.0	70.6	0.2	-13.9	24.3	0.7%	-34.0%	52.4%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
10 to 1	Maidstone	Cheshunt	88.2	77.0	68.7	83.2	71.1	70.2	-4.9	-5.9	1.5	-5.6%	-7.6%	2.2%
10 to 2	Maidstone	Romford	61.6	62.8	58.8	56.5	55.7	60.9	-5.1	-7.1	2.0	-8.3%	-11.3%	3.4%
10 to 3	Maidstone	Brentwood	59.8	56.2	63.8	54.9	49.5	66.5	-5.0	-6.7	2.7	-8.3%	-11.9%	4.2%
10 to 4	Maidstone	Basildon	63.5	64.8	58.9	50.3	46.8	64.5	-13.2	-18.0	5.7	-20.8%	-27.7%	9.6%
10 to 5	Maidstone	Tilbury Port	55.2	54.8	60.5	45.9	39.7	69.4	-9.4	-15.1	8.9	-16.9%	-27.6%	14.7%
10 to 6	Maidstone	DP World	59.1	58.9	60.2	45.9	41.0	67.1	-13.2	-17.9	7.0	-22.3%	-30.4%	11.6%
11 to 1	Rochester	Cheshunt	74.4	83.0	53.8	70.2	68.2	61.8	-4.2	-14.8	8.0	-5.6%	-17.8%	14.8%
11 to 2	Rochester	Romford	47.8	68.8	41.7	43.5	52.8	49.4	-4.3	-16.0	7.7	-9.1%	-23.3%	18.5%
11 to 3	Rochester	Brentwood	46.0	62.2	44.4	41.9	46.6	53.9	-4.2	-15.6	9.5	-9.1%	-25.1%	21.4%
11 to 4	Rochester	Basildon	49.7	70.7	42.2	37.3	43.9	51.0	-12.4	-26.9	8.8	-25.0%	-38.0%	21.0%
11 to 5	Rochester	Tilbury Port	41.4	60.8	40.9	32.9	36.8	53.7	-8.6	-24.0	12.7	-20.7%	-39.5%	31.1%
11 to 6	Rochester	DP World	45.3	64.9	41.9	32.9	38.1	51.8	-12.4	-26.8	9.9	-27.4%	-41.3%	23.7%
12 to 1	Rainham	Cheshunt	91.6	89.6	61.3	87.6	73.8	71.2	-4.0	-15.8	9.9	-4.4%	-17.7%	16.1%
12 to 2	Rainham	Romford	65.0	75.5	51.7	60.8	58.4	62.5	-4.2	-17.1	10.8	-6.4%	-22.7%	21.0%
12 to 3	Rainham	Brentwood	63.2	68.9	55.1	59.2	52.2	68.1	-4.0	-16.7	13.0	-6.4%	-24.2%	23.6%
12 to 4	Rainham	Basildon	66.9	77.4	51.9	54.7	49.5	66.3	-12.3	-27.9	14.4	-18.3%	-36.1%	27.8%
12 to 5	Rainham	Tilbury Port	58.7	67.5	52.2	50.2	42.4	71.2	-8.4	-25.1	19.0	-14.4%	-37.2%	36.4%
12 to 6	Rainham	DP World	62.5	71.6	52.4	50.2	43.7	69.0	-12.3	-27.9	16.6	-19.6%	-39.0%	31.7%

## **D.5 LTAM 2051 Low Growth – Outputs to Economic Assessment**

D.5.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2051 low growth forecast.

### **Matrix Total Comparison**

D.5.2 Table D.80 and Table D.81 show that the VDMs have converged to the desired criteria.

D.5.3 Table D.82 and Table D.83 provide a comparison of the input reference matrices with the VDM output matrices. The SATURN format comparisons are provided for all movements and relevant movements.

**Table D.80 Convergence and Stability Statistics (Low 2051 DM)**

Iteration	% GAP		Cost stability				Flow stability				Totals
	Full Model	Subset Area	RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%	Trips*
1	12.98%	19.46%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%	80,941,994
2	6.19%	8.39%	0.008	0.398	0.694	98.90%	0.138	0.033	4.783	28.56%	81,398,419
3	3.03%	3.95%	0.002	0.106	0.182	99.99%	0.055	0.016	2.389	56.77%	81,625,960
4	1.50%	1.93%	0.001	0.034	0.067	99.99%	0.027	0.008	1.194	86.38%	81,739,429
5	0.75%	0.96%	0.000	0.020	0.049	100.00%	0.013	0.004	0.596	97.91%	81,796,003
6	0.37%	0.49%	0.000	0.014	0.055	99.99%	0.007	0.002	0.298	99.56%	81,824,239
7	0.19%	0.27%	0.000	0.014	0.049	99.99%	0.003	0.001	0.149	99.89%	81,838,371
8	0.10%	0.16%	0.000	0.016	0.052	100.00%	0.002	0.001	0.075	99.99%	81,845,395
9	0.06%	0.12%	0.000	0.016	0.058	99.99%	0.001	0.000	0.042	100.00%	81,848,969
10	0.03%	0.10%	0.000	0.016	0.055	99.99%	0.001	0.000	0.040	99.97%	81,850,617

\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report

**Table D.81 Convergence and Stability Statistics (Low 2051 DS)**

Iteration	% GAP		Cost stability				Flow stability				Totals
	Full Model	Subset Area	RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%	Trips*
1	13.06%	20.47%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%	80,941,994
2	6.21%	8.67%	0.010	0.472	0.749	98.86%	0.185	0.033	4.784	25.35%	81,400,189
3	3.04%	4.07%	0.002	0.114	0.186	99.97%	0.061	0.016	2.389	53.66%	81,627,975
4	1.50%	1.98%	0.001	0.038	0.080	99.99%	0.028	0.008	1.193	83.80%	81,741,464
5	0.75%	0.98%	0.000	0.019	0.059	99.99%	0.014	0.004	0.596	97.84%	81,798,076
6	0.38%	0.50%	0.000	0.013	0.065	99.98%	0.007	0.002	0.299	99.55%	81,826,365
7	0.19%	0.27%	0.000	0.008	0.044	99.99%	0.004	0.001	0.150	99.88%	81,840,481
8	0.10%	0.17%	0.000	0.010	0.047	99.99%	0.002	0.001	0.075	99.98%	81,847,498
9	0.06%	0.12%	0.000	0.011	0.063	99.98%	0.001	0.000	0.037	99.99%	81,851,008
10	0.03%	0.08%	0.000	0.010	0.053	99.98%	0.001	0.000	0.023	99.97%	81,852,801

*\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report*



**Table D.82 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices  
(Low 2051 Reference DM and DS Highway Trips in PCUs)**

Segment	Matrix Type	Time Period	Reference Matrix (Low 2051)	VDM Output Matrix (Low 2051 DM)			VDM Output Matrix (Low 2051 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
HBEB	24Hr PA	N/A	2,890,516	2,894,305	3,789	0.1%	2,894,356	3,840	0.1%
HBW L	24Hr PA	N/A	2,460,406	2,463,947	3,541	0.1%	2,463,965	3,559	0.1%
HBW M	24Hr PA	N/A	4,340,320	4,341,368	1,048	0.0%	4,341,440	1,120	0.0%
HBW H	24Hr PA	N/A	3,393,838	3,387,652	-6,186	-0.2%	3,387,755	-6,083	-0.2%
HBO L	24Hr PA	N/A	7,418,394	7,638,382	219,988	3.0%	7,638,709	220,314	3.0%
HBO M	24Hr PA	N/A	6,659,888	6,756,606	96,718	1.5%	6,756,876	96,988	1.5%
HBO H	24Hr PA	N/A	4,801,401	4,831,101	29,701	0.6%	4,831,347	29,946	0.6%
NHBEB	By Time Period OD	AM	96,278	96,115	-163	-0.2%	96,169	-108	-0.1%
		IP	124,703	124,629	-73	-0.1%	124,633	-70	-0.1%
		PM	139,041	137,447	-1,594	-1.1%	137,454	-1,587	-1.1%
		OP	35,118	35,597	479	1.4%	35,586	467	1.3%
NHBO L	By Time Period OD	AM	143,723	147,893	4,170	2.9%	147,996	4,273	3.0%
		IP	381,168	391,862	10,694	2.8%	391,859	10,691	2.8%
		PM	301,024	306,603	5,579	1.9%	306,660	5,637	1.9%
		OP	83,809	87,387	3,578	4.3%	87,369	3,560	4.2%
NHBO M	By Time Period OD	AM	152,916	154,401	1,485	1.0%	154,482	1,566	1.0%
		IP	304,892	309,435	4,544	1.5%	309,464	4,573	1.5%

Segment	Matrix Type	Time Period	Reference Matrix (Low 2051)	VDM Output Matrix (Low 2051 DM)		VDM Output Matrix (Low 2051 DS)			
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
		PM	302,698	303,883	1,185	0.4%	303,899	1,201	0.4%
		OP	74,971	76,934	1,963	2.6%	76,913	1,942	2.6%
NHBO H	By Time Period OD	AM	123,237	123,124	-113	-0.1%	123,172	-65	-0.1%
		IP	208,904	210,228	1,324	0.6%	210,231	1,327	0.6%
		PM	234,727	233,360	-1,368	-0.6%	233,447	-1,280	-0.5%
		OP	55,092	56,207	1,115	2.0%	56,188	1,096	2.0%
LGV	By Time Period OD	AM	992,092	992,092	0	0.0%	992,092	0	0.0%
		IP	856,873	856,873	0	0.0%	856,873	0	0.0%
		PM	716,097	716,097	0	0.0%	716,097	0	0.0%
		OP	345,448	345,448	0	0.0%	345,448	0	0.0%
HGV	By Time Period OD	AM	127,481	127,481	0	0.0%	127,481	0	0.0%
		IP	143,162	143,162	0	0.0%	143,162	0	0.0%
		PM	82,612	82,612	0	0.0%	82,612	0	0.0%
		OP	56,758	56,758	0	0.0%	56,758	0	0.0%
Port Trips EB	By Time Period OD	AM	4,230	4,230	0	0.0%	4,230	0	0.0%
		IP	2,934	2,934	0	0.0%	2,934	0	0.0%
		PM	3,682	3,682	0	0.0%	3,682	0	0.0%
		OP	1,130	1,130	0	0.0%	1,130	0	0.0%

Segment	Matrix Type	Time Period	Reference Matrix (Low 2051)	VDM Output Matrix (Low 2051 DM)		VDM Output Matrix (Low 2051 DS)			
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Port Trips O LI	By Time Period OD	AM	2,440	2,440	0	0.0%	2,440	0	0.0%
		IP	3,003	3,003	0	0.0%	3,003	0	0.0%
		PM	2,981	2,981	0	0.0%	2,981	0	0.0%
		OP	972	972	0	0.0%	972	0	0.0%
Port Trips O MI	By Time Period OD	AM	2,844	2,844	0	0.0%	2,844	0	0.0%
		IP	3,171	3,171	0	0.0%	3,171	0	0.0%
		PM	3,496	3,496	0	0.0%	3,496	0	0.0%
		OP	1,078	1,078	0	0.0%	1,078	0	0.0%
Port Trips O HI	By Time Period OD	AM	4,033	4,033	0	0.0%	4,033	0	0.0%
		IP	3,373	3,373	0	0.0%	3,373	0	0.0%
		PM	4,464	4,464	0	0.0%	4,464	0	0.0%
		OP	1,290	1,290	0	0.0%	1,290	0	0.0%

**Table D.83 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices  
(Low 2051 Reference DM and DS Hourly PCUs)**

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (Low 2051)	VDM Output Matrix (Low 2051 DM)			VDM Output Matrix (Low 2051 DS)			Reference Matrix (Low 2051)	VDM Output Matrix (Low 2051 DM)			VDM Output Matrix (Low 2051 DS)		
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Employers Business	AM	500,305	501,006	700	0.1%	501,107	802	0.2%	41,935	42,711	777	1.9%	42,832	897	2.1%
	IP	435,975	435,987	12	0.0%	435,989	14	0.0%	29,114	29,289	175	0.6%	29,309	195	0.7%
	PM	601,413	598,539	-2,873	-0.5%	598,586	-2,827	-0.5%	42,593	42,356	-237	-0.6%	42,418	-175	-0.4%
	OP	172,089	173,072	983	0.6%	173,053	964	0.6%	11,604	12,501	897	7.7%	12,485	881	7.6%
Car Commute Low Income	AM	454,958	451,624	-3,335	-0.7%	451,594	-3,364	-0.7%	33,453	34,013	560	1.7%	33,979	525	1.6%
	IP	207,512	209,004	1,492	0.7%	209,023	1,511	0.7%	19,027	19,499	471	2.5%	19,518	490	2.6%
	PM	521,089	520,389	-700	-0.1%	520,404	-685	-0.1%	35,202	35,925	723	2.1%	35,940	738	2.1%
	OP	82,943	83,658	715	0.9%	83,658	715	0.9%	6,963	7,262	299	4.3%	7,262	299	4.3%
Car Commute Medium Income	AM	915,800	912,030	-3,770	-0.4%	912,127	-3,672	-0.4%	70,069	70,276	207	0.3%	70,375	306	0.4%
	IP	318,091	319,181	1,090	0.3%	319,176	1,085	0.3%	29,243	29,539	296	1.0%	29,538	295	1.0%
	PM	996,534	995,514	-1,020	-0.1%	995,554	-980	-0.1%	69,584	69,796	212	0.3%	69,836	251	0.4%
	OP	127,007	127,651	644	0.5%	127,640	633	0.5%	10,674	10,981	307	2.9%	10,970	296	2.8%

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (Low 2051)	VDM Output Matrix (Low 2051 DM)		VDM Output Matrix (Low 2051 DS)			Reference Matrix (Low 2051)	VDM Output Matrix (Low 2051 DM)		VDM Output Matrix (Low 2051 DS)				
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Commute High Income	AM	777,824	775,586	-2,238	-0.3%	775,527	-2,297	-0.3%	67,405	66,801	-604	-0.9%	66,745	-660	-1.0%
	IP	226,585	226,308	-277	-0.1%	226,314	-271	-0.1%	24,984	24,928	-56	-0.2%	24,939	-45	-0.2%
	PM	805,823	803,483	-2,340	-0.3%	803,660	-2,163	-0.3%	68,618	67,592	-1,026	-1.5%	67,772	-846	-1.2%
	OP	90,416	90,504	87	0.1%	90,498	81	0.1%	9,276	9,424	148	1.6%	9,419	143	1.5%
Car Other Low Income	AM	786,165	810,119	23,954	3.0%	810,398	24,233	3.1%	84,726	87,812	3,086	3.6%	88,169	3,444	4.1%
	IP	1,391,682	1,429,740	38,058	2.7%	1,429,703	38,021	2.7%	117,692	122,492	4,799	4.1%	122,549	4,856	4.1%
	PM	1,363,138	1,395,535	32,396	2.4%	1,395,726	32,588	2.4%	126,549	128,307	1,758	1.4%	128,582	2,033	1.6%
	OP	435,733	451,544	15,811	3.6%	451,487	15,754	3.6%	37,745	41,779	4,034	10.7%	41,731	3,987	10.6%
Car Other Medium Income	AM	839,324	849,264	9,941	1.2%	849,426	10,102	1.2%	93,758	93,747	-11	0.0%	93,989	231	0.2%
	IP	1,113,636	1,129,160	15,524	1.4%	1,129,226	15,590	1.4%	109,374	111,054	1,680	1.5%	111,210	1,836	1.7%
	PM	1,374,276	1,386,108	11,832	0.9%	1,386,173	11,897	0.9%	140,830	139,180	-1,650	-1.2%	139,331	-1,499	-1.1%
	OP	390,097	398,231	8,135	2.1%	398,187	8,090	2.1%	38,127	40,735	2,608	6.8%	40,691	2,564	6.7%
Car Other High Income	AM	674,207	675,410	1,203	0.2%	675,509	1,302	0.2%	89,064	87,194	-1,870	-2.1%	87,379	-1,685	-1.9%
	IP	752,179	756,542	4,363	0.6%	756,526	4,346	0.6%	89,416	89,396	-20	0.0%	89,465	49	0.1%
	PM	1,047,979	1,047,457	-523	0.0%	1,047,741	-238	0.0%	126,530	122,781	-3,749	-3.0%	123,153	-3,377	-2.7%
	OP	282,595	286,563	3,969	1.4%	286,519	3,925	1.4%	33,370	35,176	1,806	5.4%	35,132	1,763	5.3%

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (Low 2051)	VDM Output Matrix (Low 2051 DM)		VDM Output Matrix (Low 2051 DS)			Reference Matrix (Low 2051)	VDM Output Matrix (Low 2051 DM)		VDM Output Matrix (Low 2051 DS)				
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Total	AM	4,948,583	4,975,038	26,455	0.5%	4,975,689	27,106	0.5%	480,410	482,555	2,145	0.4%	483,469	3,059	0.6%
	IP	4,445,660	4,505,922	60,263	1.4%	4,505,956	60,296	1.4%	418,851	426,197	7,345	1.8%	426,527	7,676	1.8%
	PM	6,710,252	6,747,024	36,772	0.5%	6,747,845	37,593	0.6%	609,907	605,938	-3,969	-0.7%	607,033	-2,874	-0.5%
	OP	1,580,880	1,611,223	30,343	1.9%	1,611,042	30,162	1.9%	147,759	157,857	10,099	6.8%	157,691	9,932	6.7%
LGV	AM	992,092	992,092	0	0.0%	992,092	0	0.0%	123,215	123,215	0	0.0%	123,215	0	0.0%
	IP	856,873	856,873	0	0.0%	856,873	0	0.0%	93,234	93,234	0	0.0%	93,234	0	0.0%
	PM	716,097	716,097	0	0.0%	716,097	0	0.0%	95,135	95,135	0	0.0%	95,135	0	0.0%
	OP	345,448	345,448	0	0.0%	345,448	0	0.0%	37,019	37,019	0	0.0%	37,019	0	0.0%
HGV	AM	127,481	127,481	0	0.0%	127,481	0	0.0%	52,304	52,304	0	0.0%	52,304	0	0.0%
	IP	143,162	143,162	0	0.0%	143,162	0	0.0%	57,486	57,486	0	0.0%	57,486	0	0.0%
	PM	82,612	82,612	0	0.0%	82,612	0	0.0%	33,057	33,057	0	0.0%	33,057	0	0.0%
	OP	56,758	56,758	0	0.0%	56,758	0	0.0%	22,533	22,533	0	0.0%	22,533	0	0.0%

## Highway Assignment Model (HAM) Convergence Statistics

D.5.4 Table D.84 to Table D.86 provide the highway assignment model convergence statistics for the 2051 low growth DM forecasts. Table D.87 to Table D.89 provide the highway assignment model convergence statistics for the 2051 low growth DS forecasts.

**Table D.84 HAM Convergence Statistics – 2051 Low Growth DM AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
69	0.0049	0.0075	98.7	99.4
70	0.0060	0.0087	98.8	99.4
71	0.0045	0.0070	98.6	99.4
72	0.0047	0.0068	98.8	99.3

**Table D.85 HAM Convergence Statistics – 2051 Low Growth DM Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
66	0.0029	0.0036	98.7	99.5
67	0.0024	0.0039	99.0	99.6
68	0.0034	0.0056	98.9	99.6
69	0.0055	0.0062	98.6	99.4

**Table D.86 HAM Convergence Statistics – 2051 Low Growth DM PM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
65	0.0050	0.0073	98.5	99.2
66	0.0048	0.0060	98.6	99.1
67	0.0051	0.0067	98.8	99.2
68	0.0045	0.0078	98.7	99.1

**Table D.87 HAM Convergence Statistics – 2051 Low Growth DS AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
66	0.0047	0.0080	98.7	99.3
67	0.0044	0.0063	98.6	99.4
68	0.0043	0.0069	98.9	99.4
69	0.0045	0.0053	98.8	99.3

**Table D.88 HAM Convergence Statistics – 2051 Low Growth DS Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
68	0.0042	0.0036	98.8	99.5
69	0.0031	0.0041	98.7	99.5
70	0.0046	0.0034	98.8	99.5
71	0.0023	0.0053	98.7	99.6

**Table D.89 HAM Convergence Statistics – 2051 Low Growth DS PM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
64	0.0043	0.0065	98.7	99.2
65	0.0045	0.0063	98.8	99.2
66	0.0038	0.0065	98.8	99.2
67	0.0039	0.0065	98.7	99.1

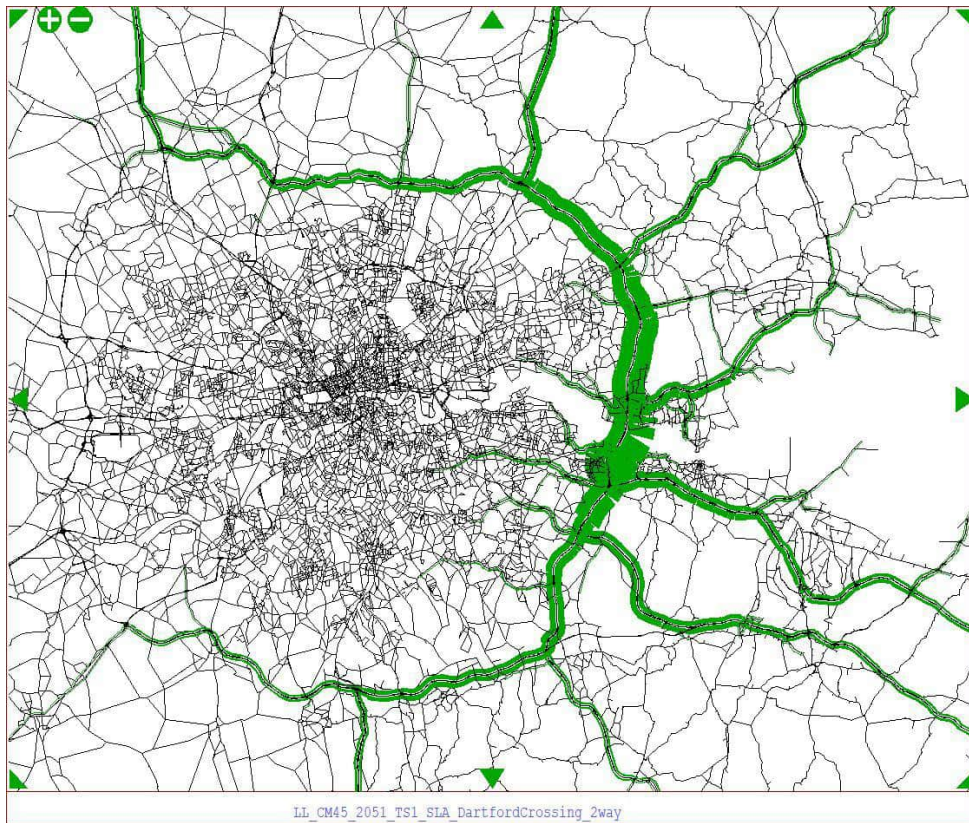
D.5.5 These tables demonstrate that the LTAM has achieved the TAG convergence targets in all time periods for this scenario and year.

### **Movement Patterns Using the Crossings**

D.5.6 Plate D.37 to Plate D.45 provide select link analysis of movements using the Dartford and Lower Thames Crossing for the Do Minimum and Do Something scenarios for each of the model time periods. These diagrams show the pattern of movements using each of the crossings in each of the time periods. Table D.90 to Table D.92 provide a summary of the main corridors using each of the crossings and a comparison between the DM and DS scenarios for each time period.



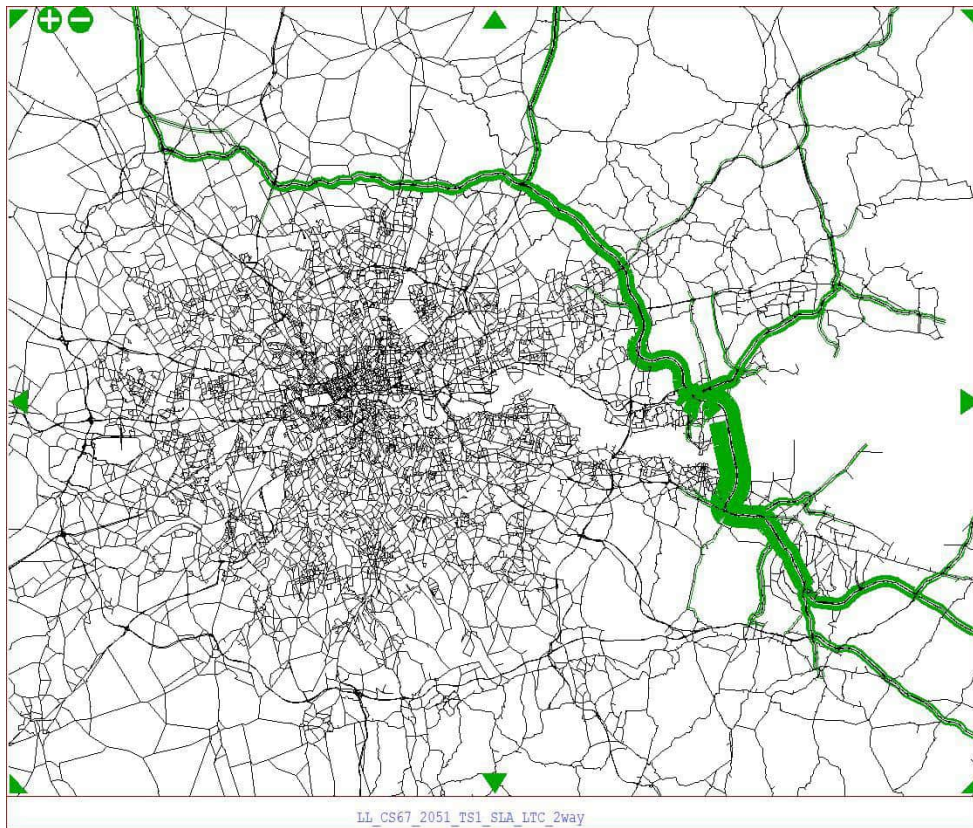
**Plate D.37 Select Link Analysis – Dartford Crossing DM 2051 Low AM Peak**



**Plate D.38 Select Link Analysis – Dartford Crossing DS 2051 Low AM Peak**



### Plate D.39 Select Link Analysis – Lower Thames Crossing DS 2051 Low AM Peak



**Table D.90 Select Link Analysis – Summary of Primary Corridors of Movement 2051  
Low AM Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,601	17%	3,651	25%	1050	40%
	Local (Outside M25)	2,012	13%	1,916	13%	-95	-5%
	M25 South (J2-3)	7,495	48%	7,743	53%	247	3%
	A2/M2 to/from Kent	3,374	22%	1,363	9%	-2010	-60%
Select Link	Dartford Crossing	<b>15,481</b>	<b>100%</b>	<b>14,673</b>	<b>100%</b>	<b>-809</b>	<b>-5%</b>
North of River	London North	2,264	15%	2,986	20%	722	32%
	Local Traffic	1,521	10%	1,641	11%	120	8%
	M25 North (J30-29)	8,541	55%	7,530	51%	-1011	-12%
	A13 to/from Essex	3,155	20%	2,515	17%	-640	-20%
South of River	Local Traffic	n/a	n/a	853	10%	n/a	n/a
	A2 West of LTC	n/a	n/a	636	7%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	7,378	83%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>8,866</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	822	9%	n/a	n/a
	A13 West of LTC	n/a	n/a	87	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	3,679	41%	n/a	n/a
	M25 North of LTC	n/a	n/a	4,278	48%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

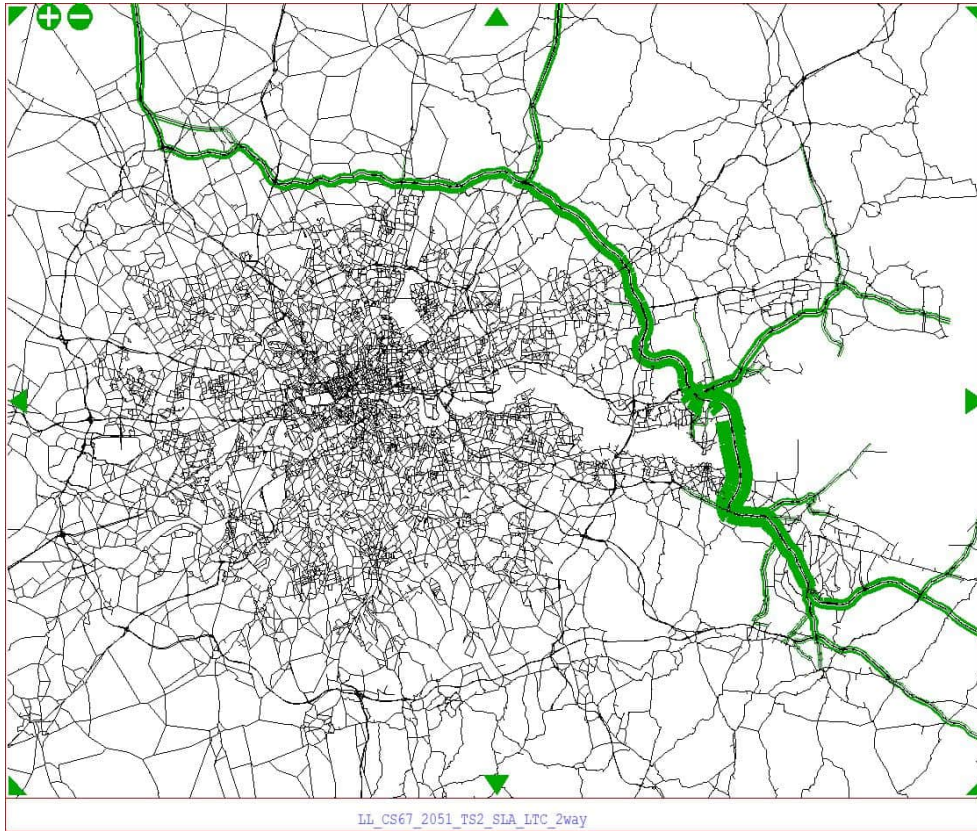
### Plate D.40 Select Link Analysis – Dartford Crossing DM 2051 Low Inter Peak



### Plate D.41 Select Link Analysis – Dartford Crossing DS 2051 Low Inter Peak



**Plate D.42 Select Link Analysis – Lower Thames Crossing DS 2051 Low Inter Peak**



**Table D.91 Select Link Analysis – Summary of Primary Corridors of Movement 2051  
Low Inter Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,285	16%	2,810	23%	525	23%
	Local (Outside M25)	1,513	10%	1,373	11%	-140	-9%
	M25 South (J2-3)	7,054	48%	6,849	55%	-206	-3%
	A2/M2 to/from Kent	3,757	26%	1,334	11%	-2424	-65%
Select Link	Dartford Crossing	<b>14,610</b>	<b>100%</b>	<b>12,366</b>	<b>100%</b>	<b>-2244</b>	<b>-15%</b>
North of River	London North	1,843	13%	2,390	19%	547	30%
	Local Traffic	1,624	11%	1,656	13%	32	2%
	M25 North (J30-29)	7,927	54%	5,873	47%	-2054	-26%
	A13 to/from Essex	3,217	22%	2,448	20%	-769	-24%
South of River	Local Traffic	n/a	n/a	819	11%	n/a	n/a
	A2 West of LTC	n/a	n/a	500	7%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	6,039	82%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>7,358</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	658	9%	n/a	n/a
	A13 West of LTC	n/a	n/a	51	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	3,015	41%	n/a	n/a
	M25 North of LTC	n/a	n/a	3,634	49%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

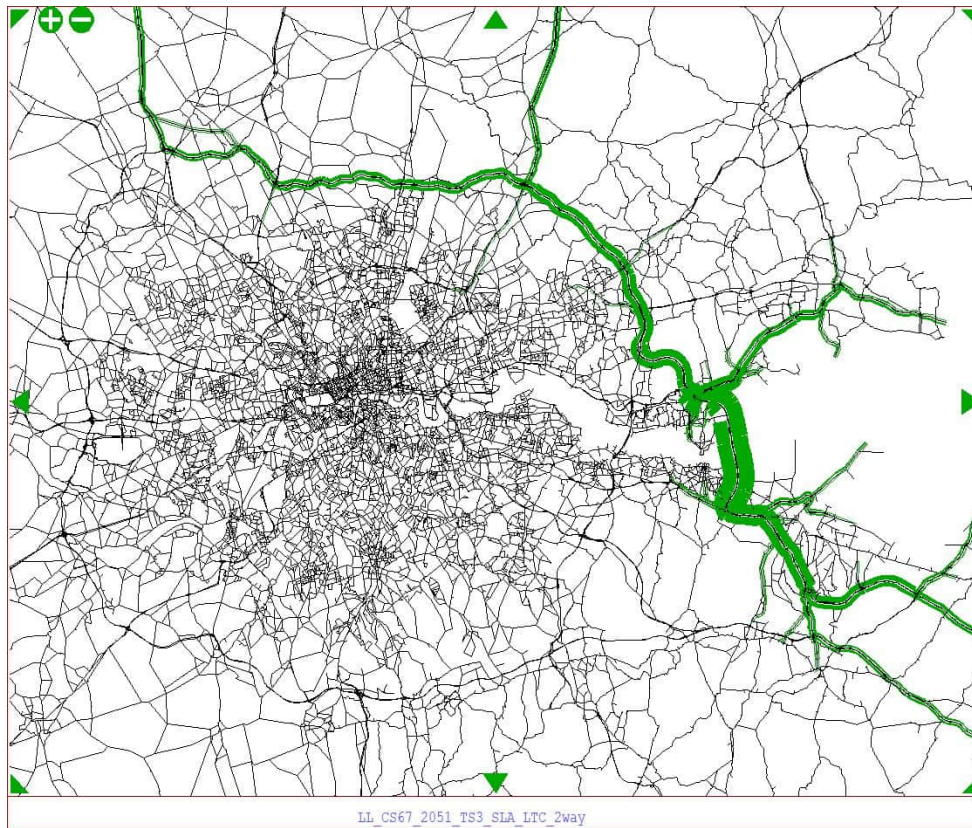
### Plate D.43 Select Link Analysis – Dartford Crossing DM 2051 Low PM Peak



### Plate D.44 Select Link Analysis – Dartford Crossing DS 2051 Low PM Peak



### Plate D.45 Select Link Analysis – Lower Thames Crossing DS 2051 Low PM Peak





**Table D.92 Select Link Analysis – Summary of Primary Corridors of Movement 2051  
Low PM Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,515	17%	3,133	23%	617	25%
	Local (Outside M25)	1,765	12%	1,601	12%	-163	-9%
	M25 South (J2-3)	7,043	47%	7,019	52%	-23	0%
	A2/M2 to/from Kent	3,815	25%	1,682	13%	-2133	-56%
Select Link	Dartford Crossing	<b>15,137</b>	<b>100%</b>	<b>13,435</b>	<b>100%</b>	<b>-1702</b>	<b>-11%</b>
North of River	London North	2,486	16%	3,219	24%	733	29%
	Local Traffic	1,531	10%	1,668	12%	137	9%
	M25 North (J30-29)	7,834	52%	6,216	46%	-1618	-21%
	A13 to/from Essex	3,286	22%	2,331	17%	-955	-29%
South of River	Local Traffic	n/a	n/a	1,261	14%	n/a	n/a
	A2 West of LTC	n/a	n/a	807	9%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	6,704	76%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>8,772</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	905	10%	n/a	n/a
	A13 West of LTC	n/a	n/a	65	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	4,148	47%	n/a	n/a
	M25 North of LTC	n/a	n/a	3,654	42%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

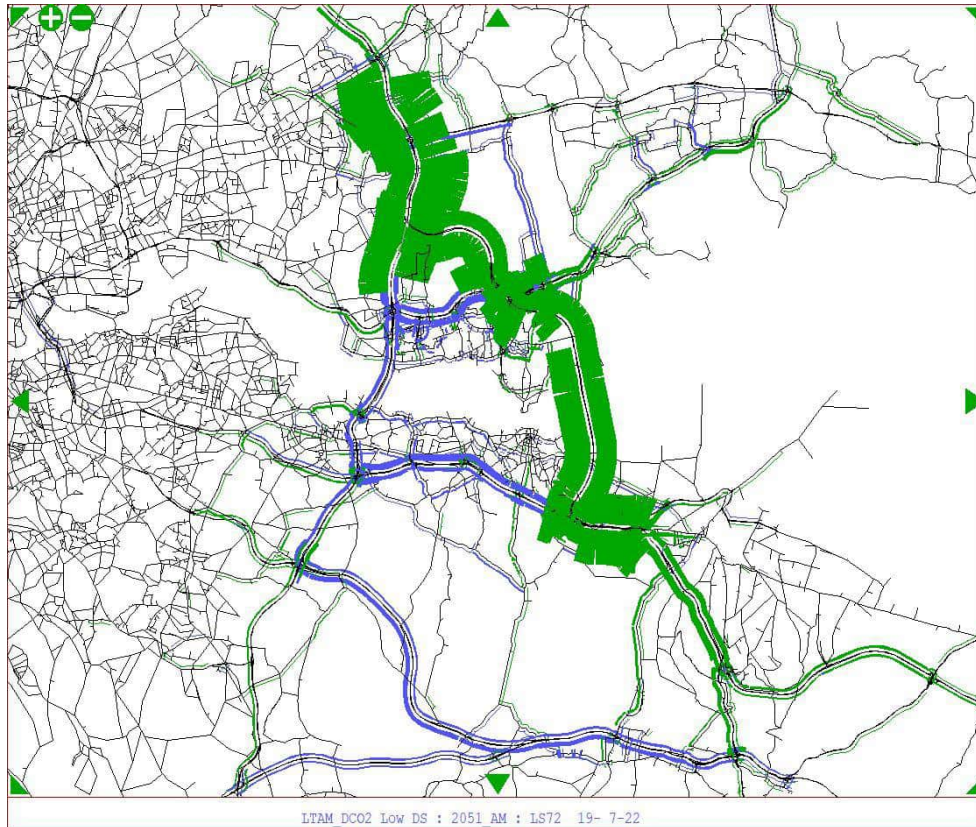
<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

## DM Vs DS Flow Comparisons

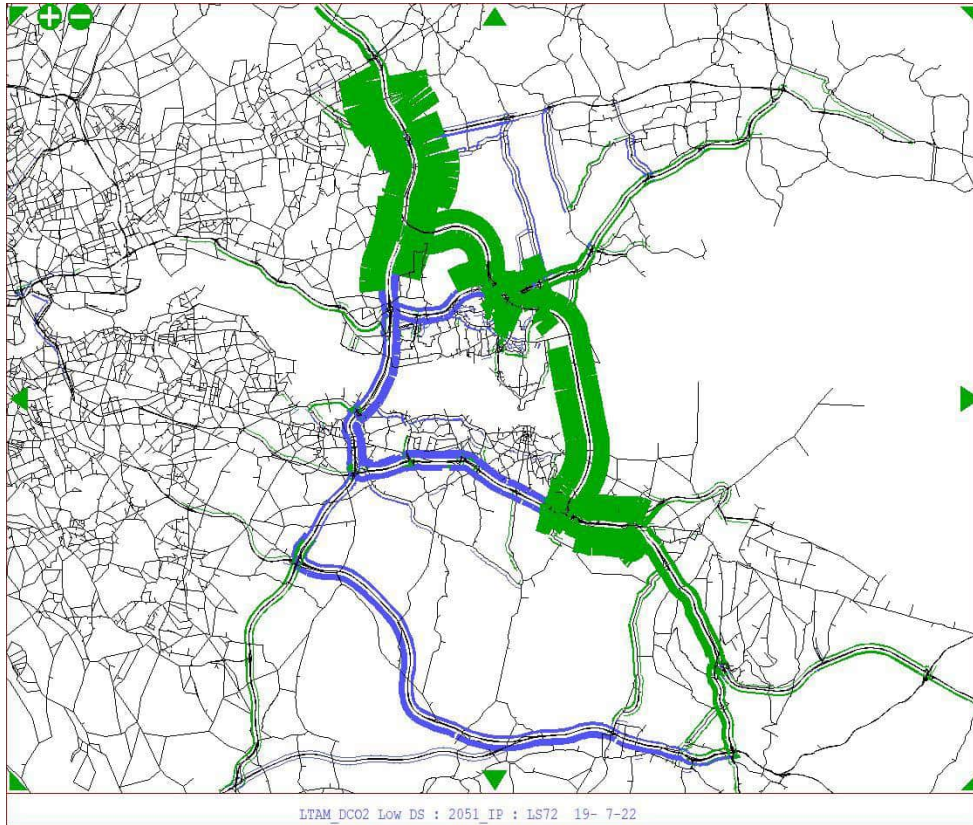
D.5.7 The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Plate D.46 to Plate D.48 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCUs per hour have been excluded from the colouring.

D.5.8 Table D.93 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link approaching the TMC. Table D.94 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link after the TMC.

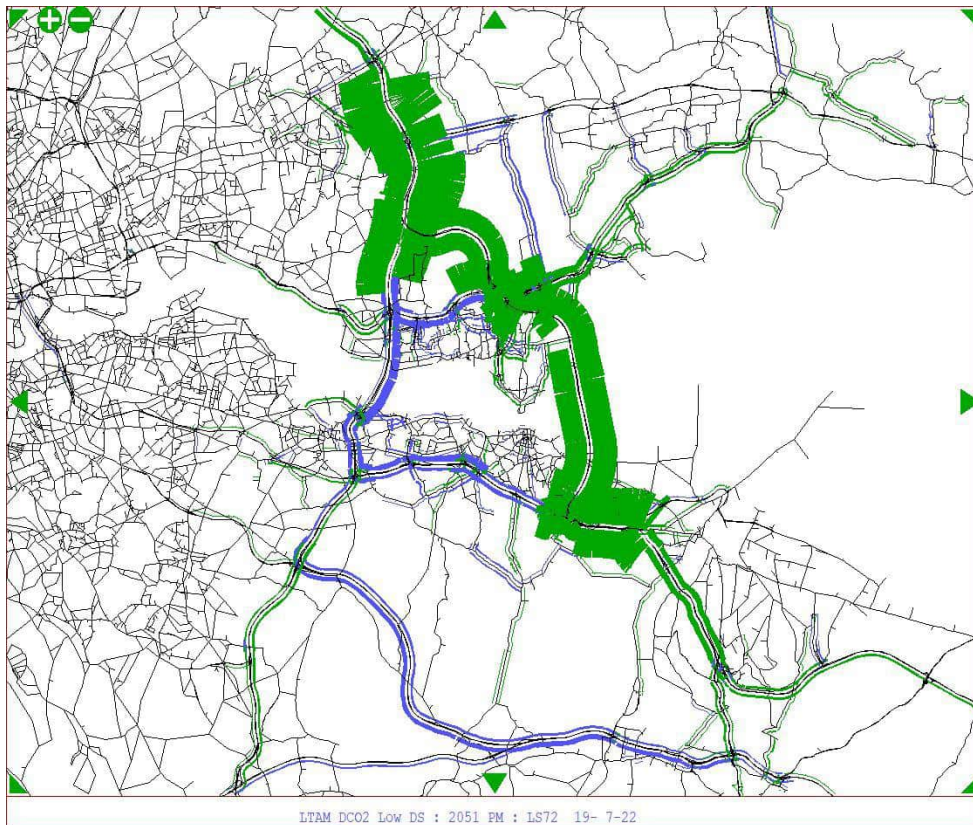
**Plate D.46 Actual Flow Comparison Plot – 2051 Low Growth DM Vs DS AM Peak**



**Plate D.47 Actual Flow Comparison Plot – 2051 Low Growth DM Vs DS Inter Peak**



**Plate D.48 Actual Flow Comparison Plot – 2051 Low Growth DM Vs DS PM Peak**



**Table D.93 Cross River Traffic Flows (NB Flows Approaching TMC) – 2051 Low Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,781	4,095	314	8%	1,800	1,760	-40	-2%	2,919	2,499	-420	-14%	8,500	8,353	-147	-2%	8,500	1.00	0.98
		IP	3,875	3,340	-535	-14%	934	785	-149	-16%	2,912	2,032	-880	-30%	7,721	6,157	-1,563	-20%	8,500	0.91	0.72
		PM	5,213	4,512	-701	-13%	1,204	936	-268	-22%	1,961	1,308	-653	-33%	8,378	6,756	-1,622	-19%	8,500	0.99	0.79
	LTC	AM	0	2,601	-	-	0	354	-	-	0	950	-	-	0	3,905	-	-	6,360	-	0.61
		IP	0	2,058	-	-	0	195	-	-	0	962	-	-	0	3,215	-	-	6,360	-	0.51
		PM	0	3,590	-	-	0	329	-	-	0	720	-	-	0	4,640	-	-	6,360	-	0.73
	Total	AM	3,781	6,696	2,915	77%	1,800	2,114	314	17%	2,919	3,448	529	18%	8,500	12,258	3,758	44%	14,860	-	0.82
		IP	3,875	5,398	1,523	39%	934	980	46	5%	2,912	2,994	82	3%	7,721	9,372	1,651	21%	14,860	-	0.63
		PM	5,213	8,102	2,889	55%	1,204	1,265	61	5%	1,961	2,028	67	3%	8,378	11,396	3,018	36%	14,860	-	0.77
NB	Dartford*	AM	3,949	3,649	-300	-8%	1,546	1,107	-439	-28%	2,208	1,563	-646	-29%	7,704	6,319	-1,385	-18%	6,981	1.10	0.91
		IP	3,513	3,394	-119	-3%	1,012	767	-245	-24%	3,146	2,048	-1,098	-35%	7,671	6,209	-1,462	-19%	6,890	1.11	0.90
		PM	4,900	4,534	-365	-7%	1,070	869	-201	-19%	1,801	1,291	-509	-28%	7,770	6,695	-1,076	-14%	6,762	1.15	0.99
	LTC	AM	0	3,319	-	-	0	636	-	-	0	1,007	-	-	0	4,962	-	-	6,360	-	0.78
		IP	0	2,455	-	-	0	361	-	-	0	1,326	-	-	0	4,142	-	-	6,360	-	0.65
		PM	0	3,198	-	-	0	284	-	-	0	652	-	-	0	4,134	-	-	6,360	-	0.65
	Total	AM	3,949	6,968	3,018	76%	1,546	1,743	197	13%	2,208	2,570	361	16%	7,704	11,281	3,577	46%	13,341	-	0.85
		IP	3,513	5,849	2,336	67%	1,012	1,128	116	11%	3,146	3,374	228	7%	7,671	10,351	2,680	35%	13,250	-	0.78
		PM	4,900	7,732	2,833	58%	1,070	1,153	83	8%	1,801	1,944	143	8%	7,770	10,829	3,058	39%	13,122	-	0.83

\* Flows are extracted for the link approaching the TMC

**Table D.94 Cross River Traffic Flows (NB Flows After TMC) – 2051 Low Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,781	4,095	314	8%	1,800	1,760	-40	-2%	2,919	2,499	-420	-14%	8,500	8,353	-147	-2%	8,500	1.00	0.98
		IP	3,875	3,340	-535	-14%	934	785	-149	-16%	2,912	2,032	-880	-30%	7,721	6,157	-1,563	-20%	8,500	0.91	0.72
		PM	5,213	4,512	-701	-13%	1,204	936	-268	-22%	1,961	1,308	-653	-33%	8,378	6,756	-1,622	-19%	8,500	0.99	0.79
	LTC	AM	0	2,601	-	-	0	354	-	-	0	950	-	-	0	3,905	-	-	6,360	-	0.61
		IP	0	2,058	-	-	0	195	-	-	0	962	-	-	0	3,215	-	-	6,360	-	0.51
		PM	0	3,590	-	-	0	329	-	-	0	720	-	-	0	4,640	-	-	6,360	-	0.73
	Total	AM	3,781	6,696	2,915	77%	1,800	2,114	314	17%	2,919	3,448	529	18%	8,500	12,258	3,758	44%	14,860	-	0.82
		IP	3,875	5,398	1,523	39%	934	980	46	5%	2,912	2,994	82	3%	7,721	9,372	1,651	21%	14,860	-	0.63
		PM	5,213	8,102	2,889	55%	1,204	1,265	61	5%	1,961	2,028	67	3%	8,378	11,396	3,018	36%	14,860	-	0.77
NB	Dartford*	AM	3,583	3,649	66	2%	1,402	1,107	-295	-21%	1,996	1,563	-434	-22%	6,981	6,319	-662	-9%	6,981	1.00	0.91
		IP	3,156	3,394	238	8%	909	767	-142	-16%	2,825	2,048	-777	-27%	6,890	6,209	-681	-10%	6,890	1.00	0.90
		PM	4,263	4,524	261	6%	932	867	-64	-7%	1,567	1,288	-279	-18%	6,762	6,679	-82	-1%	6,762	1.00	0.99
	LTC	AM	0	3,319	-	-	0	636	-	-	0	1,007	-	-	0	4,962	-	-	6,360	-	0.78
		IP	0	2,455	-	-	0	361	-	-	0	1,326	-	-	0	4,142	-	-	6,360	-	0.65
		PM	0	3,198	-	-	0	284	-	-	0	652	-	-	0	4,134	-	-	6,360	-	0.65
	Total	AM	3,583	6,968	3,385	94%	1,402	1,743	341	24%	1,996	2,570	573	29%	6,981	11,281	4,300	62%	13,341	-	0.85
		IP	3,156	5,849	2,693	85%	909	1,128	219	24%	2,825	3,374	549	19%	6,890	10,351	3,461	50%	13,250	-	0.78
		PM	4,263	7,722	3,459	81%	932	1,151	219	24%	1,567	1,940	373	24%	6,762	10,813	4,051	60%	13,122	-	0.82

\* Flows are extracted for the link after the TMC

D.5.9 The movements considered critical to understanding the impacts of the scheme are the same as those described in Chapter 8 of the main document. Table D.95 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

**Table D.95 Key Corridor Traffic Flows – 2051 Low Growth DM Vs DS (Hourly Flows in PCUs)**

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	7,732	9,180	0.84	9,003	9,180	0.98	1,271	16%
		IP	6,924	9,180	0.75	7,958	9,180	0.87	1,034	15%
		PM	6,971	9,180	0.76	8,087	9,180	0.88	1,116	16%
	M25 J28 to M25 J29 (SB)	AM	7,807	9,115	0.86	7,998	9,180	0.87	191	2%
		IP	7,525	9,115	0.83	7,915	9,180	0.86	391	5%
		PM	7,877	9,115	0.86	8,423	9,180	0.92	546	7%
B	M25 J4 to M25 J3 (NB)	AM	5,635	6,850	0.82	5,822	6,850	0.85	187	3%
		IP	5,727	6,850	0.84	6,000	6,850	0.88	273	5%
		PM	6,408	6,850	0.94	6,557	6,850	0.96	149	2%
	M25 J3 to M25 J4 (SB)	AM	6,842	6,850	1.00	6,844	6,850	1.00	2	0%
		IP	5,639	6,850	0.82	5,766	6,850	0.84	127	2%
		PM	5,910	6,850	0.86	6,234	6,850	0.91	324	5%
C	A13 A126 to A1012 (EB)	AM	5,261	6,312	0.83	4,373	6,298	0.69	-888	-17%
		IP	5,188	6,299	0.82	4,444	6,282	0.71	-744	-14%
		PM	5,748	6,267	0.92	5,628	6,236	0.90	-120	-2%
	A13 A1012 to A126 (WB)	AM	6,152	6,360	0.97	5,430	6,360	0.85	-722	-12%
		IP	5,552	6,360	0.87	4,668	6,360	0.73	-884	-16%
		PM	6,005	6,360	0.94	4,917	6,360	0.77	-1,089	-18%
D	A13 Orsett Cock to Manor Way (EB)	AM	5,150	6,370	0.81	5,780	6,370	0.91	630	12%
		IP	4,335	6,370	0.68	5,123	6,370	0.80	788	18%
		PM	4,944	6,370	0.78	5,884	6,370	0.92	940	19%
	A13 Manor Way to Orsett Cock (WB)	AM	5,213	6,220	0.84	5,871	6,220	0.94	658	13%
		IP	4,464	6,220	0.72	5,201	6,220	0.84	737	17%
		PM	4,972	6,220	0.80	5,867	6,220	0.94	896	18%

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
E	A2 A227 to Gravesend East (EB)	AM	6,473	9,237	0.70	5,471	9,232	0.59	-1,002	-15%
		IP	6,695	9,192	0.73	5,628	9,186	0.61	-1,067	-16%
		PM	9,053	9,187	0.99	8,693	9,175	0.95	-360	-4%
	A2 Gravesend East to A227 (WB)	AM	7,145	7,268	0.98	6,449	6,999	0.92	-696	-10%
		IP	6,035	7,051	0.86	5,227	6,889	0.76	-808	-13%
		PM	6,229	6,831	0.91	5,771	6,703	0.86	-458	-7%
F	M2 J1 to M2 J2 (EB)	AM	5,675	8,559	0.66	6,643	8,410	0.79	968	17%
		IP	4,913	8,707	0.56	5,748	8,582	0.67	835	17%
		PM	6,565	8,601	0.76	7,774	8,452	0.92	1,209	18%
	M2 J2 to M2 J1 (WB)	AM	6,183	8,806	0.70	7,628	8,596	0.89	1,445	23%
		IP	4,313	8,868	0.49	6,030	8,725	0.69	1,717	40%
		PM	5,515	8,938	0.62	6,615	8,760	0.76	1,100	20%
G	M20 J3 to M20 J4 (EB)	AM	6,244	9,115	0.69	5,898	9,115	0.65	-347	-6%
		IP	6,167	9,115	0.68	5,687	9,115	0.62	-480	-8%
		PM	8,757	9,115	0.96	8,415	9,115	0.92	-342	-4%
	M20 J4 to M20 J3 (WB)	AM	8,763	9,115	0.96	8,074	9,115	0.89	-689	-8%
		IP	5,996	9,115	0.66	4,867	9,115	0.53	-1,128	-19%
		PM	6,154	9,115	0.68	5,363	9,115	0.59	-791	-13%

## DM Vs DS Journey Time Comparisons

- D.5.10 The same link based and route based journey time comparisons introduced under Chapter 8 of the main document are repeated for this year scenario combination.
- D.5.11 The link based journey time comparisons for this scenario are presented in Table D.96 to Table D.98.
- D.5.12 Table D.99 to Table D.104 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

**Table D.96 Link Based Journey Time Scenario Comparison (2051 Low Growth DM Vs DS) AM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	17.1	82.7	23.5	17.6	79.9	0.0	0.6	-2.7	-0.1%	3.3%	-3.3%
	B to D	M25 J29	M25 J2	18.8	21.5	52.6	18.9	15.9	71.2	0.1	-5.6	18.7	0.3%	-26.0%	35.5%
	D to F	M25 J2	M25 J7	37.7	31.7	71.3	37.7	33.6	67.4	0.0	1.9	-4.0	0.0%	5.9%	-5.6%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	26.3	86.8	38.0	26.5	86.0	0.0	0.2	-0.8	0.0%	0.9%	-0.9%
	D to B	M25 J2	M25 J29	18.7	20.7	54.1	18.8	14.5	78.1	0.1	-6.3	24.0	0.6%	-30.3%	44.4%
	B to A	M25 J29	M25 J26	23.2	17.4	80.2	23.1	20.4	68.2	-0.1	3.0	-12.0	-0.3%	17.3%	-15.0%
A13 EB	C to G	M25 J30	A1089	5.2	5.4	57.7	5.3	4.3	73.3	0.0	-1.1	15.6	0.9%	-20.6%	27.1%
	G to H	A1089	A130	15.7	13.4	70.2	15.7	14.6	64.4	-0.1	1.2	-5.8	-0.4%	8.6%	-8.2%
A13 WB	H to G	A130	A1089	15.3	14.9	61.4	15.2	16.6	54.7	-0.1	1.7	-6.7	-0.7%	11.5%	-10.9%
	G to C	A1089	M25 J30	5.5	9.0	36.7	5.6	5.9	57.0	0.1	-3.1	20.4	1.6%	-34.7%	55.6%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	9.5	96.3	15.3	9.1	101.7	0.1	-0.5	5.5	0.5%	-4.9%	5.7%
	I to J	M2 J1	M2 J4	14.7	8.6	102.6	14.7	9.1	96.8	0.0	0.5	-5.8	0.0%	6.0%	-5.7%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	9.3	98.1	15.1	10.4	87.1	-0.1	1.1	-11.0	-0.7%	11.8%	-11.2%
	I to D	M2 J1	M25 J2	14.8	18.6	47.7	14.8	13.3	67.0	0.1	-5.3	19.2	0.6%	-28.3%	40.3%
M20 EB	E to K	M25 J3	M20 J8	35.3	20.7	102.6	35.3	20.4	103.8	0.0	-0.2	1.2	0.0%	-1.1%	1.1%
M20 WB	K to E	M20 J8	M25 J3	35.3	25.7	82.4	35.3	23.8	89.2	0.0	-2.0	6.8	0.0%	-7.6%	8.3%



**Table D.97 Link Based Journey Time Scenario Comparison (2051 Low Growth DM Vs DS) Inter Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	16.5	85.3	23.5	17.1	82.6	0.0	0.5	-2.8	-0.1%	3.2%	-3.2%
	B to D	M25 J29	M25 J2	18.8	14.4	78.5	18.9	12.6	89.8	0.1	-1.8	11.4	0.3%	-12.4%	14.5%
	D to F	M25 J2	M25 J7	37.7	25.7	88.0	37.7	25.9	87.5	0.0	0.2	-0.6	0.0%	0.6%	-0.6%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	26.5	86.1	38.0	27.3	83.5	0.0	0.8	-2.6	0.0%	3.1%	-3.0%
	D to B	M25 J2	M25 J29	18.7	20.2	55.5	18.8	13.7	82.6	0.1	-6.5	27.1	0.6%	-32.3%	48.7%
	B to A	M25 J29	M25 J26	23.2	14.8	94.3	23.1	16.4	84.8	-0.1	1.6	-9.5	-0.3%	10.8%	-10.0%
A13 EB	C to G	M25 J30	A1089	5.2	5.4	57.5	5.3	4.4	71.4	0.0	-1.0	13.9	0.9%	-18.7%	24.2%
	G to H	A1089	A130	15.7	11.7	80.5	15.7	13.0	72.5	-0.1	1.2	-7.9	-0.4%	10.5%	-9.9%
A13 WB	H to G	A130	A1089	15.3	11.6	78.8	15.2	12.9	70.7	-0.1	1.3	-8.1	-0.7%	10.8%	-10.3%
	G to C	A1089	M25 J30	5.5	6.4	51.6	5.6	4.8	70.2	0.1	-1.6	18.6	1.6%	-25.3%	36.1%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	9.7	94.9	15.3	9.0	102.1	0.1	-0.6	7.2	0.5%	-6.6%	7.5%
	I to J	M2 J1	M2 J4	14.7	8.4	104.9	14.7	8.6	102.6	0.0	0.2	-2.2	0.0%	2.2%	-2.1%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	8.6	106.5	15.1	8.8	102.4	-0.1	0.3	-4.1	-0.7%	3.3%	-3.9%
	I to D	M2 J1	M25 J2	14.8	11.6	76.1	14.8	9.3	96.3	0.1	-2.4	20.2	0.6%	-20.5%	26.5%
M20 EB	E to K	M25 J3	M20 J8	35.3	20.3	104.3	35.3	20.1	105.4	0.0	-0.2	1.1	0.0%	-1.1%	1.1%
M20 WB	K to E	M20 J8	M25 J3	35.3	20.5	103.5	35.3	20.0	105.9	0.0	-0.4	2.3	0.0%	-2.2%	2.2%

**Table D.98 Link Based Journey Time Scenario Comparison (2051 Low Growth DM Vs DS) PM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	18.2	77.4	23.5	19.6	72.0	0.0	1.3	-5.4	-0.1%	7.3%	-6.9%
	B to D	M25 J29	M25 J2	18.8	17.2	65.7	18.9	13.6	83.5	0.1	-3.6	17.8	0.3%	-21.1%	27.0%
	D to F	M25 J2	M25 J7	37.7	24.9	90.8	37.7	25.7	88.3	0.0	0.7	-2.5	0.0%	2.9%	-2.8%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	31.4	72.7	38.0	32.1	71.0	0.0	0.8	-1.7	0.0%	2.4%	-2.4%
	D to B	M25 J2	M25 J29	18.7	20.0	56.1	18.8	14.4	78.4	0.1	-5.6	22.2	0.6%	-27.9%	39.6%
	B to A	M25 J29	M25 J26	23.2	14.6	95.6	23.1	16.1	86.2	-0.1	1.5	-9.4	-0.3%	10.5%	-9.8%
A13 EB	C to G	M25 J30	A1089	5.2	8.4	37.1	5.3	5.6	56.1	0.0	-2.8	19.0	0.9%	-33.3%	51.2%
	G to H	A1089	A130	15.7	13.0	72.4	15.7	14.6	64.2	-0.1	1.6	-8.2	-0.4%	12.4%	-11.4%
A13 WB	H to G	A130	A1089	15.3	12.4	73.8	15.2	15.0	60.6	-0.1	2.6	-13.3	-0.7%	21.1%	-18.0%
	G to C	A1089	M25 J30	5.5	7.8	42.3	5.6	5.2	65.0	0.1	-2.6	22.7	1.6%	-33.8%	53.6%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	14.7	62.3	15.3	11.3	81.5	0.1	-3.4	19.2	0.5%	-23.2%	30.9%
	I to J	M2 J1	M2 J4	14.7	9.7	90.5	14.7	12.1	72.8	0.0	2.4	-17.7	0.0%	24.3%	-19.6%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	8.9	102.1	15.1	9.2	98.3	-0.1	0.3	-3.8	-0.7%	3.2%	-3.7%
	I to D	M2 J1	M25 J2	14.8	15.1	58.8	14.8	11.4	78.4	0.1	-3.7	19.6	0.6%	-24.6%	33.3%
M20 EB	E to K	M25 J3	M20 J8	35.3	26.2	81.0	35.3	25.0	84.9	0.0	-1.2	3.9	0.0%	-4.6%	4.9%
M20 WB	K to E	M20 J8	M25 J3	35.3	20.8	102.0	35.3	20.4	104.0	0.0	-0.4	2.0	0.0%	-1.9%	2.0%

**Table D.99 Route Based Journey Time Comparison North to South Movements (2051 Low Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 7	Cheshunt	Bexley	61.8	64.7	57.3	61.9	61.6	60.2	0.0	-3.0	2.9	0.1%	-4.7%	5.0%
1 to 8	Cheshunt	Godstone	91.5	85.5	64.2	91.5	82.5	66.6	0.0	-3.1	2.4	0.0%	-3.6%	3.7%
1 to 9	Cheshunt	Southfleet	62.1	60.0	62.1	62.2	54.7	68.2	0.0	-5.3	6.1	0.1%	-8.8%	9.8%
1 to 10	Cheshunt	Maidstone	88.2	77.7	68.1	84.8	73.2	69.5	-3.4	-4.5	1.4	-3.9%	-5.8%	2.0%
1 to 11	Cheshunt	Rochester	74.4	76.5	58.4	70.3	65.3	64.6	-4.1	-11.2	6.2	-5.5%	-14.6%	10.7%
1 to 12	Cheshunt	Rainham	91.4	82.4	66.6	87.3	71.3	73.5	-4.1	-11.1	6.9	-4.5%	-13.5%	10.4%
2 to 7	Romford	Bexley	31.9	54.7	35.0	35.6	49.4	43.3	3.7	-5.3	8.3	11.7%	-9.7%	23.6%
2 to 8	Romford	Godstone	61.6	75.6	48.9	65.3	70.3	55.8	3.7	-5.3	6.9	6.0%	-7.0%	14.1%
2 to 9	Romford	Southfleet	32.2	50.0	38.7	36.0	42.5	50.8	3.7	-7.6	12.1	11.6%	-15.1%	31.4%
2 to 10	Romford	Maidstone	58.3	67.7	51.6	58.5	61.0	57.6	0.3	-6.7	6.0	0.5%	-10.0%	11.6%
2 to 11	Romford	Rochester	44.5	66.6	40.1	44.1	53.1	49.8	-0.4	-13.4	9.7	-0.9%	-20.2%	24.1%
2 to 12	Romford	Rainham	61.5	72.4	51.0	61.1	59.1	62.1	-0.4	-13.4	11.1	-0.6%	-18.4%	21.8%
3 to 7	Brentwood	Bexley	33.0	46.1	43.0	32.9	41.0	48.2	-0.1	-5.1	5.2	-0.3%	-11.1%	12.2%
3 to 8	Brentwood	Godstone	62.7	66.9	56.2	62.6	61.8	60.8	-0.1	-5.1	4.6	-0.1%	-7.7%	8.1%
3 to 9	Brentwood	Southfleet	33.3	41.4	48.3	33.2	34.0	58.6	-0.1	-7.4	10.3	-0.3%	-17.8%	21.4%
3 to 10	Brentwood	Maidstone	59.3	59.0	60.3	55.8	52.5	63.8	-3.5	-6.6	3.5	-5.9%	-11.1%	5.8%
3 to 11	Brentwood	Rochester	45.6	57.9	47.3	41.4	44.6	55.6	-4.2	-13.3	8.4	-9.3%	-22.9%	17.7%
3 to 12	Brentwood	Rainham	62.6	63.8	58.9	58.4	50.6	69.2	-4.2	-13.2	10.3	-6.7%	-20.7%	17.6%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
4 to 7	Basildon	Bexley	39.7	57.2	41.6	39.6	52.6	45.2	-0.1	-4.6	3.6	-0.2%	-8.1%	8.6%
4 to 8	Basildon	Godstone	69.4	78.1	53.3	69.3	73.4	56.6	-0.1	-4.6	3.3	-0.1%	-6.0%	6.2%
4 to 9	Basildon	Southfleet	40.0	52.5	45.7	34.7	39.5	52.8	-5.3	-13.1	7.1	-13.2%	-24.8%	15.5%
4 to 10	Basildon	Maidstone	66.0	70.2	56.4	49.0	57.0	51.5	-17.1	-13.2	-4.9	-25.9%	-18.8%	-8.7%
4 to 11	Basildon	Rochester	52.3	69.1	45.5	36.4	48.9	44.7	-15.9	-20.2	-0.8	-30.4%	-29.2%	-1.7%
4 to 12	Basildon	Rainham	69.3	74.9	55.5	53.4	54.8	58.5	-15.9	-20.1	3.0	-22.9%	-26.8%	5.3%
5 to 7	Tilbury Port	Bexley	28.3	42.9	39.6	28.3	36.7	46.3	0.0	-6.2	6.7	0.0%	-14.4%	16.8%
5 to 8	Tilbury Port	Godstone	58.0	63.7	54.6	58.0	57.6	60.4	0.0	-6.2	5.9	0.0%	-9.7%	10.8%
5 to 9	Tilbury Port	Southfleet	28.6	38.2	45.0	27.7	24.0	69.2	-0.9	-14.2	24.2	-3.2%	-37.1%	53.9%
5 to 10	Tilbury Port	Maidstone	54.6	55.9	58.7	41.9	41.6	60.5	-12.7	-14.3	1.9	-23.2%	-25.6%	3.2%
5 to 11	Tilbury Port	Rochester	40.9	54.7	44.9	29.4	33.4	52.8	-11.5	-21.3	7.9	-28.2%	-39.0%	17.6%
5 to 12	Tilbury Port	Rainham	57.9	60.6	57.3	46.4	39.4	70.7	-11.5	-21.2	13.4	-19.9%	-35.0%	23.3%
6 to 7	DP World	Bexley	32.1	46.4	41.5	32.1	40.8	47.2	0.0	-5.6	5.7	0.0%	-12.1%	13.7%
6 to 8	DP World	Godstone	61.8	67.2	55.2	61.8	61.6	60.2	0.0	-5.6	5.0	0.0%	-8.3%	9.1%
6 to 9	DP World	Southfleet	32.4	41.7	46.7	29.0	26.0	67.1	-3.4	-15.7	20.5	-10.4%	-37.7%	43.8%
6 to 10	DP World	Maidstone	58.4	59.3	59.1	43.3	43.5	59.7	-15.2	-15.8	0.6	-26.0%	-26.7%	1.0%
6 to 11	DP World	Rochester	44.7	58.2	46.1	30.7	35.3	52.1	-14.0	-22.9	6.0	-31.3%	-39.3%	13.1%
6 to 12	DP World	Rainham	61.7	64.1	57.8	47.7	41.3	69.3	-14.0	-22.8	11.5	-22.7%	-35.6%	20.0%

**Table D.100 Route Based Journey Time Comparison North to South Movements (2051 Low Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 7	Cheshunt	Bexley	61.9	52.6	70.7	61.9	51.5	72.1	0.0	-1.1	1.4	-0.1%	-2.0%	2.0%
1 to 8	Cheshunt	Godstone	91.6	70.1	78.4	91.5	69.0	79.6	0.0	-1.1	1.3	0.0%	-1.6%	1.6%
1 to 9	Cheshunt	Southfleet	62.2	50.1	74.5	62.2	48.3	77.2	0.0	-1.8	2.7	-0.1%	-3.6%	3.6%
1 to 10	Cheshunt	Maidstone	88.2	66.6	79.5	82.9	62.4	79.7	-5.4	-4.2	0.2	-6.1%	-6.3%	0.2%
1 to 11	Cheshunt	Rochester	74.5	63.7	70.2	70.3	57.8	73.0	-4.3	-6.0	2.8	-5.8%	-9.3%	3.9%
1 to 12	Cheshunt	Rainham	91.5	71.4	76.9	87.3	65.4	80.1	-4.2	-6.0	3.2	-4.6%	-8.4%	4.2%
2 to 7	Romford	Bexley	35.6	41.5	51.4	35.6	38.5	55.4	0.0	-3.0	4.1	0.0%	-7.3%	7.9%
2 to 8	Romford	Godstone	65.2	59.1	66.2	65.3	56.0	69.9	0.0	-3.1	3.7	0.0%	-5.3%	5.6%
2 to 9	Romford	Southfleet	35.9	39.1	55.1	35.9	35.3	61.0	0.0	-3.8	5.9	0.0%	-9.6%	10.7%
2 to 10	Romford	Maidstone	61.9	55.5	66.9	56.6	49.4	68.7	-5.3	-6.2	1.9	-8.6%	-11.1%	2.8%
2 to 11	Romford	Rochester	48.2	52.7	54.9	44.0	44.8	58.9	-4.2	-7.9	4.0	-8.8%	-15.1%	7.4%
2 to 12	Romford	Rainham	65.2	60.4	64.7	61.0	52.4	69.9	-4.1	-8.0	5.2	-6.3%	-13.2%	8.0%
3 to 7	Brentwood	Bexley	33.0	34.3	57.7	32.9	32.4	61.0	-0.1	-1.9	3.2	-0.3%	-5.6%	5.6%
3 to 8	Brentwood	Godstone	62.7	51.9	72.5	62.6	49.9	75.3	-0.1	-2.0	2.8	-0.1%	-3.8%	3.8%
3 to 9	Brentwood	Southfleet	33.3	31.8	62.8	33.2	29.2	68.3	-0.1	-2.6	5.5	-0.3%	-8.3%	8.7%
3 to 10	Brentwood	Maidstone	59.3	48.3	73.7	53.9	43.3	74.8	-5.4	-5.0	1.1	-9.1%	-10.4%	1.4%
3 to 11	Brentwood	Rochester	45.6	45.4	60.3	41.3	38.6	64.1	-4.3	-6.8	3.9	-9.5%	-15.0%	6.4%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
3 to 12	Brentwood	Rainham	62.6	53.2	70.7	58.4	46.3	75.7	-4.2	-6.9	5.0	-6.7%	-12.9%	7.1%
4 to 7	Basildon	Bexley	39.7	38.5	61.9	39.6	36.3	65.5	-0.1	-2.2	3.6	-0.2%	-5.7%	5.8%
4 to 8	Basildon	Godstone	69.4	56.1	74.3	69.3	53.8	77.3	-0.1	-2.3	3.1	-0.1%	-4.1%	4.1%
4 to 9	Basildon	Southfleet	40.0	36.1	66.6	33.8	28.5	71.2	-6.3	-7.6	4.6	-15.7%	-21.1%	6.9%
4 to 10	Basildon	Maidstone	66.1	52.5	75.5	48.0	41.0	70.1	-18.1	-11.5	-5.3	-27.4%	-21.9%	-7.1%
4 to 11	Basildon	Rochester	52.4	49.7	63.3	35.4	36.4	58.3	-17.0	-13.3	-5.0	-32.5%	-26.7%	-7.9%
4 to 12	Basildon	Rainham	69.3	57.4	72.5	52.4	44.1	71.4	-16.9	-13.3	-1.1	-24.4%	-23.2%	-1.5%
5 to 7	Tilbury Port	Bexley	28.3	30.6	55.6	28.3	27.7	61.3	0.0	-2.9	5.8	0.0%	-9.4%	10.4%
5 to 8	Tilbury Port	Godstone	58.0	48.1	72.3	58.0	45.2	77.0	0.0	-2.9	4.7	0.0%	-6.1%	6.5%
5 to 9	Tilbury Port	Southfleet	28.6	28.1	61.1	27.7	19.6	85.0	-0.9	-8.5	23.8	-3.2%	-30.4%	39.0%
5 to 10	Tilbury Port	Maidstone	54.6	44.6	73.6	41.9	32.1	78.3	-12.7	-12.4	4.7	-23.3%	-27.9%	6.4%
5 to 11	Tilbury Port	Rochester	41.0	41.7	58.9	29.3	27.5	63.9	-11.6	-14.2	5.0	-28.4%	-34.0%	8.4%
5 to 12	Tilbury Port	Rainham	57.9	49.4	70.3	46.4	35.2	79.1	-11.5	-14.2	8.8	-19.9%	-28.8%	12.6%
6 to 7	DP World	Bexley	32.1	34.1	56.5	32.1	31.7	60.7	0.0	-2.4	4.3	0.0%	-7.1%	7.5%
6 to 8	DP World	Godstone	61.8	51.7	71.7	61.8	49.2	75.3	0.0	-2.5	3.6	0.0%	-4.8%	5.0%
6 to 9	DP World	Southfleet	32.4	31.7	61.4	29.0	22.0	79.1	-3.4	-9.6	17.7	-10.4%	-30.5%	28.8%
6 to 10	DP World	Maidstone	58.4	48.1	72.9	43.2	34.6	75.0	-15.2	-13.5	2.2	-26.0%	-28.1%	3.0%
6 to 11	DP World	Rochester	44.7	45.3	59.3	30.6	30.0	61.3	-14.1	-15.3	2.0	-31.6%	-33.8%	3.4%
6 to 12	DP World	Rainham	61.7	53.0	69.9	47.7	37.6	76.1	-14.0	-15.4	6.2	-22.7%	-29.0%	8.9%

**Table D.101 Route Based Journey Time Comparison North to South Movements (2051 Low Growth DM Vs DS) PM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 7	Cheshunt	Bexley	61.9	61.9	60.0	61.9	60.4	61.4	0.0	-1.5	1.4	0.0%	-2.4%	2.4%
1 to 8	Cheshunt	Godstone	91.6	76.7	71.6	91.5	75.1	73.1	0.0	-1.5	1.5	0.0%	-2.0%	2.0%
1 to 9	Cheshunt	Southfleet	60.8	58.3	62.5	62.2	54.9	68.0	1.4	-3.4	5.5	2.3%	-5.9%	8.7%
1 to 10	Cheshunt	Maidstone	88.2	78.9	67.1	82.9	74.3	66.9	-5.3	-4.6	-0.2	-6.1%	-5.8%	-0.2%
1 to 11	Cheshunt	Rochester	75.0	78.4	57.4	70.8	69.1	61.5	-4.2	-9.3	4.1	-5.6%	-11.8%	7.1%
1 to 12	Cheshunt	Rainham	91.5	92.5	59.3	87.3	83.3	62.9	-4.1	-9.2	3.6	-4.5%	-9.9%	6.0%
2 to 7	Romford	Bexley	36.0	52.9	40.9	36.1	47.7	45.4	0.1	-5.1	4.5	0.1%	-9.7%	10.9%
2 to 8	Romford	Godstone	65.7	67.6	58.3	65.7	62.4	63.2	0.1	-5.2	4.9	0.1%	-7.7%	8.4%
2 to 9	Romford	Southfleet	34.9	49.2	42.5	36.4	42.2	51.8	1.5	-7.1	9.3	4.2%	-14.4%	21.8%
2 to 10	Romford	Maidstone	62.4	69.8	53.6	57.1	61.6	55.6	-5.3	-8.3	2.0	-8.5%	-11.8%	3.8%
2 to 11	Romford	Rochester	49.1	69.3	42.5	45.0	56.4	47.9	-4.1	-12.9	5.4	-8.4%	-18.7%	12.7%
2 to 12	Romford	Rainham	65.6	83.4	47.2	61.5	70.6	52.3	-4.1	-12.9	5.1	-6.2%	-15.4%	10.9%
3 to 7	Brentwood	Bexley	33.0	42.1	47.1	32.9	38.8	50.8	-0.1	-3.2	3.7	-0.3%	-7.6%	8.0%
3 to 8	Brentwood	Godstone	62.7	56.8	66.2	62.6	53.5	70.2	-0.1	-3.3	3.9	-0.1%	-5.8%	6.0%
3 to 9	Brentwood	Southfleet	31.9	38.4	49.8	33.2	33.3	59.9	1.3	-5.2	10.1	4.2%	-13.4%	20.3%
3 to 10	Brentwood	Maidstone	59.3	59.0	60.3	53.9	52.7	61.4	-5.4	-6.3	1.1	-9.1%	-10.7%	1.8%
3 to 11	Brentwood	Rochester	46.1	58.5	47.3	41.9	47.5	52.9	-4.2	-11.0	5.6	-9.2%	-18.8%	11.8%
3 to 12	Brentwood	Rainham	62.6	72.6	51.7	58.4	61.7	56.8	-4.2	-10.9	5.1	-6.7%	-15.0%	9.8%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
4 to 7	Basildon	Bexley	36.8	47.4	46.7	39.2	44.8	52.5	2.4	-2.5	5.8	6.5%	-5.4%	12.5%
4 to 8	Basildon	Godstone	66.5	62.1	64.2	68.9	59.5	69.5	2.4	-2.6	5.2	3.6%	-4.2%	8.1%
4 to 9	Basildon	Southfleet	35.7	43.8	49.0	33.8	32.1	63.2	-2.0	-11.7	14.2	-5.5%	-26.7%	28.9%
4 to 10	Basildon	Maidstone	63.2	64.4	58.9	48.0	49.6	58.0	-15.2	-14.7	-0.9	-24.1%	-22.9%	-1.5%
4 to 11	Basildon	Rochester	49.9	63.8	46.9	35.9	44.4	48.5	-14.0	-19.4	1.6	-28.1%	-30.4%	3.3%
4 to 12	Basildon	Rainham	66.4	77.9	51.1	52.4	58.6	53.7	-14.0	-19.3	2.6	-21.1%	-24.8%	5.0%
5 to 7	Tilbury Port	Bexley	28.3	37.1	45.8	28.3	31.8	53.4	0.0	-5.2	7.5	0.0%	-14.1%	16.4%
5 to 8	Tilbury Port	Godstone	58.0	51.8	67.2	58.0	46.5	74.8	0.0	-5.3	7.6	0.0%	-10.2%	11.4%
5 to 9	Tilbury Port	Southfleet	27.2	33.4	48.8	27.7	20.9	79.4	0.5	-12.5	30.6	1.9%	-37.4%	62.7%
5 to 10	Tilbury Port	Maidstone	54.6	54.0	60.7	41.9	38.5	65.4	-12.7	-15.6	4.7	-23.3%	-28.8%	7.7%
5 to 11	Tilbury Port	Rochester	41.4	53.5	46.4	29.9	33.3	53.8	-11.6	-20.2	7.4	-27.9%	-37.8%	15.9%
5 to 12	Tilbury Port	Rainham	57.9	67.6	51.4	46.4	47.4	58.7	-11.5	-20.2	7.3	-19.9%	-29.8%	14.1%
6 to 7	DP World	Bexley	32.1	41.0	47.0	32.1	38.4	50.1	0.0	-2.6	3.2	-0.1%	-6.3%	6.7%
6 to 8	DP World	Godstone	61.8	55.8	66.5	61.8	53.1	69.8	0.0	-2.7	3.3	0.0%	-4.8%	5.0%
6 to 9	DP World	Southfleet	31.0	37.4	49.8	29.0	26.0	67.1	-2.0	-11.4	17.4	-6.3%	-30.6%	34.9%
6 to 10	DP World	Maidstone	58.4	58.0	60.5	43.2	43.5	59.6	-15.2	-14.5	-0.8	-26.0%	-25.0%	-1.3%
6 to 11	DP World	Rochester	45.2	57.5	47.2	31.2	38.3	48.8	-14.0	-19.2	1.6	-31.0%	-33.3%	3.5%
6 to 12	DP World	Rainham	61.7	71.6	51.7	47.7	52.5	54.6	-14.0	-19.1	2.8	-22.7%	-26.7%	5.5%



**Table D.102 Route Based Journey Time Comparison South to North Movements (2051 Low Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
7 to 1	Bexley	Cheshunt	61.6	60.2	61.4	61.6	57.1	64.8	0.0	-3.1	3.4	0.1%	-5.2%	5.5%
7 to 2	Bexley	Romford	34.7	46.4	44.8	34.7	40.1	51.9	0.0	-6.3	7.0	0.0%	-13.6%	15.7%
7 to 3	Bexley	Brentwood	33.1	42.1	47.2	32.7	37.2	52.6	-0.5	-4.9	5.4	-1.5%	-11.6%	11.5%
7 to 4	Bexley	Basildon	36.8	44.3	49.9	36.8	37.3	59.3	0.0	-7.0	9.3	-0.1%	-15.8%	18.7%
7 to 5	Bexley	Tilbury Port	28.6	36.7	46.7	28.6	28.9	59.2	0.0	-7.8	12.5	-0.1%	-21.2%	26.9%
7 to 6	Bexley	DP World	32.4	40.0	48.5	32.4	33.4	58.2	0.0	-6.6	9.6	-0.1%	-16.6%	19.8%
8 to 1	Godstone	Cheshunt	91.8	81.8	67.3	91.8	79.1	69.6	0.0	-2.6	2.3	0.0%	-3.2%	3.4%
8 to 2	Godstone	Romford	64.9	68.1	57.2	64.9	62.2	62.6	0.0	-5.8	5.4	0.0%	-8.6%	9.4%
8 to 3	Godstone	Brentwood	63.3	63.7	59.6	62.9	59.3	63.6	-0.5	-4.4	4.0	-0.7%	-6.9%	6.6%
8 to 4	Godstone	Basildon	67.0	65.9	61.0	67.0	59.4	67.7	0.0	-6.5	6.7	0.0%	-9.9%	11.0%
8 to 5	Godstone	Tilbury Port	58.7	58.3	60.4	58.7	51.0	69.1	0.0	-7.3	8.7	0.0%	-12.6%	14.4%
8 to 6	Godstone	DP World	62.6	61.7	60.9	62.6	55.5	67.7	0.0	-6.2	6.8	0.0%	-10.0%	11.1%
9 to 1	Southfleet	Cheshunt	60.7	60.0	60.7	60.8	55.3	66.0	0.0	-4.8	5.3	0.1%	-7.9%	8.7%
9 to 2	Southfleet	Romford	33.8	46.3	43.9	33.8	38.3	53.0	0.0	-7.9	9.1	0.0%	-17.2%	20.8%
9 to 3	Southfleet	Brentwood	32.3	41.9	46.2	31.8	35.4	53.9	-0.5	-6.5	7.7	-1.4%	-15.6%	16.7%
9 to 4	Southfleet	Basildon	36.0	44.1	49.0	35.8	30.3	71.1	-0.1	-13.8	22.1	-0.4%	-31.4%	45.2%
9 to 5	Southfleet	Tilbury Port	27.7	36.6	45.5	31.4	25.5	74.0	3.7	-11.1	28.5	13.4%	-30.3%	62.7%
9 to 6	Southfleet	DP World	31.5	39.9	47.5	31.4	26.4	71.4	-0.1	-13.5	23.9	-0.4%	-33.8%	50.5%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
10 to 1	Maidstone	Cheshunt	88.3	81.8	64.8	83.3	72.4	69.1	-5.0	-9.4	4.3	-5.6%	-11.5%	6.7%
10 to 2	Maidstone	Romford	61.4	68.0	54.1	56.4	55.2	61.2	-5.0	-12.8	7.1	-8.2%	-18.8%	13.1%
10 to 3	Maidstone	Brentwood	59.8	63.7	56.3	54.3	52.3	62.3	-5.5	-11.4	5.9	-9.2%	-17.9%	10.5%
10 to 4	Maidstone	Basildon	63.5	65.9	57.9	50.3	44.7	67.6	-13.2	-21.2	9.7	-20.8%	-32.2%	16.8%
10 to 5	Maidstone	Tilbury Port	55.2	58.3	56.8	45.9	39.9	69.0	-9.4	-18.4	12.2	-16.9%	-31.6%	21.4%
10 to 6	Maidstone	DP World	59.1	61.6	57.5	45.9	40.8	67.4	-13.2	-20.8	9.9	-22.3%	-33.8%	17.3%
11 to 1	Rochester	Cheshunt	76.2	85.0	53.8	70.3	67.8	62.2	-5.9	-17.2	8.4	-7.8%	-20.2%	15.5%
11 to 2	Rochester	Romford	49.3	71.2	41.6	43.4	50.7	51.3	-6.0	-20.5	9.7	-12.1%	-28.8%	23.5%
11 to 3	Rochester	Brentwood	47.8	66.9	42.8	41.3	47.8	51.8	-6.5	-19.1	9.0	-13.6%	-28.6%	21.0%
11 to 4	Rochester	Basildon	51.5	69.1	44.7	37.3	40.2	55.7	-14.2	-28.9	11.0	-27.5%	-41.9%	24.6%
11 to 5	Rochester	Tilbury Port	43.2	61.5	42.1	32.9	35.4	55.8	-10.3	-26.2	13.6	-23.9%	-42.5%	32.3%
11 to 6	Rochester	DP World	47.0	64.8	43.5	32.9	36.3	54.3	-14.2	-28.6	10.8	-30.1%	-44.1%	24.9%
12 to 1	Rainham	Cheshunt	91.7	98.5	55.8	87.7	81.5	64.6	-4.0	-17.1	8.7	-4.4%	-17.3%	15.6%
12 to 2	Rainham	Romford	64.8	84.8	45.9	60.7	64.3	56.6	-4.1	-20.5	10.8	-6.3%	-24.1%	23.5%
12 to 3	Rainham	Brentwood	63.3	80.5	47.2	58.7	61.4	57.3	-4.6	-19.0	10.1	-7.2%	-23.6%	21.5%
12 to 4	Rainham	Basildon	67.0	82.6	48.6	54.7	53.8	61.0	-12.3	-28.8	12.4	-18.3%	-34.9%	25.4%
12 to 5	Rainham	Tilbury Port	58.7	75.1	46.9	50.2	49.0	61.5	-8.4	-26.1	14.6	-14.4%	-34.7%	31.2%
12 to 6	Rainham	DP World	62.5	78.4	47.8	50.2	49.9	60.4	-12.3	-28.5	12.5	-19.6%	-36.3%	26.2%

**Table D.103 Route Based Journey Time Comparison South to North Movements (2051 Low Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
7 to 1	Bexley	Cheshunt	61.6	56.3	65.6	61.6	52.1	71.0	0.0	-4.2	5.3	0.1%	-7.4%	8.1%
7 to 2	Bexley	Romford	35.8	41.8	51.5	35.8	35.9	59.8	0.0	-5.9	8.4	-0.1%	-14.0%	16.3%
7 to 3	Bexley	Brentwood	33.2	39.5	50.3	33.2	33.8	59.0	0.0	-5.8	8.7	0.1%	-14.6%	17.3%
7 to 4	Bexley	Basildon	36.8	43.3	51.1	36.8	36.4	60.6	0.0	-6.9	9.6	-0.1%	-15.9%	18.8%
7 to 5	Bexley	Tilbury Port	28.6	38.3	44.7	28.6	31.9	53.7	0.0	-6.4	9.0	0.0%	-16.8%	20.1%
7 to 6	Bexley	DP World	32.4	39.1	49.8	32.4	32.0	60.7	0.0	-7.1	11.0	-0.1%	-18.1%	22.0%
8 to 1	Godstone	Cheshunt	91.8	77.3	71.2	91.8	73.5	75.0	0.0	-3.9	3.8	0.1%	-5.0%	5.3%
8 to 2	Godstone	Romford	66.0	62.8	63.1	66.0	57.2	69.2	0.0	-5.5	6.1	0.0%	-8.8%	9.6%
8 to 3	Godstone	Brentwood	63.3	60.5	62.8	63.4	55.1	69.0	0.0	-5.5	6.3	0.1%	-9.0%	10.0%
8 to 4	Godstone	Basildon	67.0	64.3	62.5	67.0	57.8	69.6	0.0	-6.5	7.1	0.0%	-10.2%	11.3%
8 to 5	Godstone	Tilbury Port	58.8	59.3	59.4	58.8	53.2	66.2	0.0	-6.1	6.8	0.0%	-10.3%	11.4%
8 to 6	Godstone	DP World	62.6	60.0	62.5	62.6	53.3	70.4	0.0	-6.7	7.9	0.0%	-11.2%	12.6%
9 to 1	Southfleet	Cheshunt	60.7	56.1	64.9	60.8	50.1	72.7	0.0	-6.0	7.8	0.1%	-10.7%	12.1%
9 to 2	Southfleet	Romford	35.0	41.6	50.4	35.0	33.9	61.8	0.0	-7.7	11.4	0.0%	-18.5%	22.6%
9 to 3	Southfleet	Brentwood	32.3	39.4	49.2	32.3	31.8	61.1	0.0	-7.6	11.9	0.1%	-19.3%	24.2%
9 to 4	Southfleet	Basildon	36.0	43.1	50.0	35.8	29.0	74.2	-0.1	-14.2	24.2	-0.4%	-32.8%	48.4%
9 to 5	Southfleet	Tilbury Port	27.7	38.2	43.5	31.4	27.9	67.5	3.7	-10.3	24.0	13.4%	-26.9%	55.1%
9 to 6	Southfleet	DP World	31.5	38.9	48.7	31.4	24.5	76.8	-0.1	-14.4	28.2	-0.4%	-36.9%	57.9%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
10 to 1	Maidstone	Cheshunt	88.3	72.7	72.9	83.3	63.4	78.9	-5.0	-9.3	6.0	-5.6%	-12.8%	8.2%
10 to 2	Maidstone	Romford	62.5	58.2	64.5	57.5	47.1	73.2	-5.0	-11.0	8.7	-8.0%	-19.0%	13.5%
10 to 3	Maidstone	Brentwood	59.8	55.9	64.2	54.9	44.6	73.9	-4.9	-11.4	9.7	-8.3%	-20.3%	15.1%
10 to 4	Maidstone	Basildon	63.5	59.7	63.9	50.3	40.0	75.4	-13.2	-19.6	11.6	-20.8%	-32.9%	18.1%
10 to 5	Maidstone	Tilbury Port	55.2	54.7	60.6	45.9	39.0	70.6	-9.4	-15.7	10.1	-16.9%	-28.8%	16.6%
10 to 6	Maidstone	DP World	59.1	55.4	63.9	45.9	35.6	77.3	-13.2	-19.8	13.4	-22.3%	-35.8%	21.0%
11 to 1	Rochester	Cheshunt	74.5	73.0	61.2	70.3	59.5	70.9	-4.2	-13.5	9.7	-5.6%	-18.5%	15.8%
11 to 2	Rochester	Romford	48.7	58.4	50.0	44.5	43.2	61.7	-4.2	-15.2	11.7	-8.7%	-26.1%	23.5%
11 to 3	Rochester	Brentwood	46.0	56.2	49.1	41.9	40.7	61.8	-4.2	-15.5	12.6	-9.0%	-27.6%	25.7%
11 to 4	Rochester	Basildon	49.7	60.0	49.7	37.3	36.1	61.9	-12.4	-23.8	12.2	-25.0%	-39.7%	24.5%
11 to 5	Rochester	Tilbury Port	41.4	55.0	45.2	32.9	35.1	56.2	-8.6	-19.9	11.0	-20.7%	-36.2%	24.4%
11 to 6	Rochester	DP World	45.3	55.7	48.8	32.9	31.7	62.2	-12.4	-24.0	13.5	-27.4%	-43.1%	27.6%
12 to 1	Rainham	Cheshunt	91.7	80.4	68.4	87.7	66.8	78.7	-4.0	-13.6	10.3	-4.4%	-16.9%	15.0%
12 to 2	Rainham	Romford	65.9	65.9	60.0	61.8	50.6	73.4	-4.1	-15.3	13.3	-6.2%	-23.3%	22.2%
12 to 3	Rainham	Brentwood	63.3	63.7	59.6	59.2	48.0	74.0	-4.0	-15.6	14.4	-6.4%	-24.6%	24.1%
12 to 4	Rainham	Basildon	67.0	67.4	59.6	54.7	43.5	75.4	-12.3	-23.9	15.9	-18.3%	-35.5%	26.6%
12 to 5	Rainham	Tilbury Port	58.7	62.4	56.4	50.2	42.4	71.1	-8.4	-20.0	14.7	-14.4%	-32.1%	26.0%
2 to 6	Rainham	DP World	62.5	63.2	59.4	50.2	39.0	77.2	-12.3	-24.1	17.8	-19.6%	-38.2%	30.0%

**Table D.104 Route Based Journey Time Comparison South to North Movements (2051 Low Growth DM Vs DS) PM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
7 to 1	Bexley	Cheshunt	61.5	61.9	59.6	61.5	58.2	63.4	0.0	-3.7	3.8	0.1%	-6.0%	6.5%
7 to 2	Bexley	Romford	34.9	48.0	43.6	34.8	42.7	48.8	-0.1	-5.3	5.3	-0.3%	-11.0%	12.1%
7 to 3	Bexley	Brentwood	33.1	40.9	48.6	33.2	36.2	55.0	0.0	-4.8	6.5	0.1%	-11.6%	13.3%
7 to 4	Bexley	Basildon	36.8	49.9	44.3	36.8	42.8	51.7	0.0	-7.2	7.4	0.0%	-14.3%	16.7%
7 to 5	Bexley	Tilbury Port	28.6	39.8	43.0	28.6	31.6	54.3	0.0	-8.3	11.2	0.0%	-20.7%	26.1%
7 to 6	Bexley	DP World	32.4	44.0	44.2	32.4	36.9	52.7	0.0	-7.1	8.5	0.0%	-16.2%	19.3%
8 to 1	Godstone	Cheshunt	91.1	85.8	63.7	91.2	82.9	66.0	0.1	-3.0	2.3	0.1%	-3.4%	3.6%
8 to 2	Godstone	Romford	64.5	71.9	53.8	64.4	67.4	57.4	-0.1	-4.5	3.5	-0.1%	-6.3%	6.6%
8 to 3	Godstone	Brentwood	62.8	64.8	58.1	62.8	60.8	62.0	0.0	-4.0	3.9	0.1%	-6.2%	6.7%
8 to 4	Godstone	Basildon	66.5	73.8	54.1	66.5	67.4	59.2	0.0	-6.4	5.1	0.0%	-8.7%	9.5%
8 to 5	Godstone	Tilbury Port	58.2	63.7	54.8	58.2	56.2	62.1	0.0	-7.5	7.3	0.0%	-11.8%	13.3%
8 to 6	Godstone	DP World	62.0	67.9	54.8	62.0	61.5	60.5	0.0	-6.4	5.7	0.0%	-9.4%	10.3%
9 to 1	Southfleet	Cheshunt	60.6	59.9	60.7	60.7	55.1	66.1	0.0	-4.8	5.4	0.1%	-8.0%	8.8%
9 to 2	Southfleet	Romford	34.0	46.0	44.4	33.9	39.6	51.4	-0.1	-6.4	7.0	-0.3%	-13.9%	15.8%
9 to 3	Southfleet	Brentwood	32.3	38.9	49.8	32.3	33.1	58.7	0.0	-5.9	8.9	0.1%	-15.1%	17.9%
9 to 4	Southfleet	Basildon	36.0	47.9	45.1	36.2	33.4	65.1	0.2	-14.5	20.0	0.6%	-30.3%	44.4%
9 to 5	Southfleet	Tilbury Port	27.7	37.8	43.9	31.8	26.2	72.7	4.1	-11.6	28.7	14.7%	-30.7%	65.4%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
9 to 6	Southfleet	DP World	31.5	42.0	45.0	31.8	27.5	69.3	0.2	-14.5	24.2	0.7%	-34.5%	53.8%
10 to 1	Maidstone	Cheshunt	88.2	78.3	67.6	83.2	72.6	68.8	-4.9	-5.7	1.2	-5.6%	-7.2%	1.7%
10 to 2	Maidstone	Romford	61.6	64.3	57.4	56.5	57.1	59.3	-5.1	-7.3	1.9	-8.3%	-11.3%	3.4%
10 to 3	Maidstone	Brentwood	59.8	57.3	62.7	54.9	50.6	65.1	-4.9	-6.7	2.4	-8.3%	-11.7%	3.9%
10 to 4	Maidstone	Basildon	63.5	66.2	57.5	50.3	48.0	63.0	-13.2	-18.3	5.4	-20.8%	-27.6%	9.4%
10 to 5	Maidstone	Tilbury Port	55.2	56.2	59.0	45.9	40.8	67.5	-9.4	-15.4	8.5	-16.9%	-27.4%	14.3%
10 to 6	Maidstone	DP World	59.1	60.3	58.7	45.9	42.1	65.4	-13.2	-18.2	6.7	-22.3%	-30.2%	11.3%
11 to 1	Rochester	Cheshunt	74.4	84.9	52.6	70.2	69.6	60.5	-4.2	-15.3	7.9	-5.6%	-18.0%	15.1%
11 to 2	Rochester	Romford	47.8	71.0	40.4	43.5	54.1	48.2	-4.3	-16.9	7.8	-9.0%	-23.8%	19.3%
11 to 3	Rochester	Brentwood	46.0	63.9	43.2	41.9	47.6	52.8	-4.2	-16.3	9.6	-9.1%	-25.5%	22.1%
11 to 4	Rochester	Basildon	49.7	72.9	40.9	37.3	45.0	49.8	-12.4	-27.9	8.8	-25.0%	-38.3%	21.5%
11 to 5	Rochester	Tilbury Port	41.4	62.8	39.6	32.9	37.8	52.1	-8.6	-25.0	12.5	-20.7%	-39.8%	31.7%
11 to 6	Rochester	DP World	45.3	67.0	40.6	32.9	39.1	50.4	-12.4	-27.9	9.8	-27.4%	-41.6%	24.3%
12 to 1	Rainham	Cheshunt	91.6	91.4	60.1	87.6	75.0	70.1	-4.0	-16.4	10.0	-4.4%	-18.0%	16.6%
12 to 2	Rainham	Romford	65.0	77.5	50.3	60.8	59.4	61.4	-4.2	-18.0	11.1	-6.4%	-23.3%	22.0%
12 to 3	Rainham	Brentwood	63.2	70.4	53.9	59.2	52.9	67.1	-4.0	-17.5	13.3	-6.4%	-24.8%	24.6%
12 to 4	Rainham	Basildon	66.9	79.4	50.6	54.7	50.3	65.2	-12.3	-29.1	14.6	-18.3%	-36.6%	28.8%
12 to 5	Rainham	Tilbury Port	58.7	69.3	50.8	50.2	43.2	69.8	-8.4	-26.1	19.0	-14.4%	-37.7%	37.5%
12 to 6	Rainham	DP World	62.5	73.5	51.0	50.2	44.5	67.8	-12.3	-29.0	16.8	-19.6%	-39.5%	32.9%

## **D.6 LTAM 2030 High Growth – Outputs to Economic Assessment**

D.6.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2030 high growth forecast.

### **Matrix Total Comparison**

D.6.2 Table D.105 and Table D.106 show that the VDMs have converged to the desired criteria.

D.6.3 Table D.107 and Table D.108 provide a comparison of the input reference matrices with the VDM output matrices. The SATURN format comparisons are provided for all movements and relevant movements.

**Table D.105 Convergence and Stability Statistics (High 2030 DM)**

Iteration			Cost stability				Flow stability				Totals
Main	Full Model Rel	Subset Area Rel	RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%	Trips*
1	7.32%	14.08%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%	85,696,092
2	3.47%	5.67%	0.013	0.749	1.380	93.56%	0.096	0.019	2.322	39.27%	85,922,933
3	1.71%	2.68%	0.002	0.108	0.202	99.99%	0.037	0.009	1.161	75.27%	86,038,578
4	0.85%	1.31%	0.001	0.028	0.060	100.00%	0.017	0.004	0.580	95.18%	86,096,587
5	0.42%	0.66%	0.000	0.014	0.038	100.00%	0.009	0.002	0.290	98.90%	86,125,577
6	0.21%	0.34%	0.000	0.011	0.039	100.00%	0.004	0.001	0.145	99.69%	86,140,127
7	0.11%	0.19%	0.000	0.011	0.036	100.00%	0.002	0.001	0.076	99.91%	86,147,310
8	0.06%	0.12%	0.000	0.012	0.041	100.00%	0.001	0.000	0.040	99.99%	86,150,986
9	0.03%	0.08%	0.000	0.010	0.039	100.00%	0.001	0.000	0.023	100.00%	86,152,747

*\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report*



**Table D.106 Convergence and Stability Statistics (High 2030 DS)**

Iteration	% GAP		Cost stability				Flow stability				Totals
	Full Model	Subset Area	RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%	Trips*
1	7.31%	13.97%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%	85,696,092
2	3.49%	5.86%	0.007	0.362	0.738	98.87%	0.102	0.019	2.324	43.27%	85,924,408
3	1.72%	2.79%	0.001	0.071	0.141	99.98%	0.039	0.009	1.160	74.64%	86,040,192
4	0.85%	1.37%	0.001	0.025	0.063	99.99%	0.019	0.004	0.580	93.05%	86,098,214
5	0.43%	0.68%	0.000	0.014	0.060	99.99%	0.009	0.002	0.290	98.92%	86,127,232
6	0.22%	0.36%	0.000	0.011	0.043	100.00%	0.005	0.001	0.145	99.69%	86,141,741
7	0.11%	0.20%	0.000	0.009	0.033	100.00%	0.002	0.001	0.078	99.91%	86,149,085
8	0.06%	0.11%	0.000	0.007	0.033	100.00%	0.001	0.000	0.036	99.99%	86,152,708
9	0.03%	0.08%	0.000	0.007	0.033	100.00%	0.001	0.000	0.022	100.00%	86,154,499

*\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report*

**Table D.107 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices  
(High 2030 Reference DM and DS Highway Trips in PCUs)**

Segment	Matrix Type	Time Period	Reference Matrix (High 2030)	VDM Output Matrix (High 2030 DM)			VDM Output Matrix (High 2030 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
HBEB	24Hr PA	N/A	3,096,108	3,096,850	742	0.0%	3,096,896	788	0.0%
HBW L	24Hr PA	N/A	2,698,614	2,698,023	-592	0.0%	2,698,047	-567	0.0%
HBW M	24Hr PA	N/A	4,771,152	4,768,403	-2,748	-0.1%	4,768,488	-2,664	-0.1%
HBW H	24Hr PA	N/A	3,734,051	3,727,108	-6,943	-0.2%	3,727,236	-6,816	-0.2%
HBO L	24Hr PA	N/A	7,676,159	7,778,313	102,154	1.3%	7,778,538	102,378	1.3%
HBO M	24Hr PA	N/A	6,887,583	6,936,138	48,555	0.7%	6,936,355	48,772	0.7%
HBO H	24Hr PA	N/A	4,950,144	4,966,474	16,329	0.3%	4,966,696	16,552	0.3%
NHBEB	By Time Period OD	AM	105,141	104,886	-255	-0.2%	104,938	-203	-0.2%
		IP	136,158	136,082	-76	-0.1%	136,085	-73	-0.1%
		PM	151,793	149,987	-1,807	-1.2%	149,995	-1,799	-1.2%
		OP	38,348	38,687	340	0.9%	38,677	329	0.9%
NHBO L	By Time Period OD	AM	152,433	154,389	1,956	1.3%	154,469	2,036	1.3%
		IP	404,540	409,712	5,172	1.3%	409,705	5,165	1.3%
		PM	319,508	320,866	1,357	0.4%	320,902	1,394	0.4%
		OP	89,078	91,036	1,958	2.2%	91,026	1,948	2.2%
NHBO M	By Time Period OD	AM	162,137	162,785	649	0.4%	162,861	725	0.4%
		IP	323,446	326,006	2,560	0.8%	326,034	2,588	0.8%
		PM	321,171	320,374	-797	-0.2%	320,384	-787	-0.2%
		OP	79,653	80,943	1,290	1.6%	80,924	1,271	1.6%

Segment	Matrix Type	Time Period	Reference Matrix (High 2030)	VDM Output Matrix (High 2030 DM)		VDM Output Matrix (High 2030 DS)			
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
NHBO H	By Time Period OD	AM	130,548	130,376	-172	-0.1%	130,423	-125	-0.1%
		IP	221,268	222,168	900	0.4%	222,177	909	0.4%
		PM	248,680	246,869	-1,812	-0.7%	246,939	-1,741	-0.7%
		OP	58,456	59,315	859	1.5%	59,297	842	1.4%
LGV	By Time Period OD	AM	946,757	946,757	0	0.0%	946,757	0	0.0%
		IP	817,694	817,694	0	0.0%	817,694	0	0.0%
		PM	683,439	683,439	0	0.0%	683,439	0	0.0%
		OP	329,649	329,649	0	0.0%	329,649	0	0.0%
HGV	By Time Period OD	AM	145,570	145,570	0	0.0%	145,570	0	0.0%
		IP	163,554	163,554	0	0.0%	163,554	0	0.0%
		PM	94,339	94,339	0	0.0%	94,339	0	0.0%
		OP	64,903	64,903	0	0.0%	64,903	0	0.0%
Port Trips EB	By Time Period OD	AM	5,365	5,365	0	0.0%	5,365	0	0.0%
		IP	3,739	3,739	0	0.0%	3,739	0	0.0%
		PM	4,684	4,684	0	0.0%	4,684	0	0.0%
		OP	1,450	1,450	0	0.0%	1,450	0	0.0%
Port Trips O LI	By Time Period OD	AM	3,123	3,123	0	0.0%	3,123	0	0.0%
		IP	3,841	3,841	0	0.0%	3,841	0	0.0%
		PM	3,819	3,819	0	0.0%	3,819	0	0.0%
		OP	1,248	1,248	0	0.0%	1,248	0	0.0%

Segment	Matrix Type	Time Period	Reference Matrix (High 2030)	VDM Output Matrix (High 2030 DM)			VDM Output Matrix (High 2030 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Port Trips O MI	By Time Period OD	AM	3,642	3,642	0	0.0%	3,642	0	0.0%
		IP	4,056	4,056	0	0.0%	4,056	0	0.0%
		PM	4,478	4,478	0	0.0%	4,478	0	0.0%
		OP	1,383	1,383	0	0.0%	1,383	0	0.0%
Port Trips O HI	By Time Period OD	AM	5,167	5,167	0	0.0%	5,167	0	0.0%
		IP	4,316	4,316	0	0.0%	4,316	0	0.0%
		PM	5,720	5,720	0	0.0%	5,720	0	0.0%
		OP	1,655	1,655	0	0.0%	1,655	0	0.0%

**Table D.108 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices (High 2030 Reference DM and DS Hourly PCUs)**

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (High 2030)	VDM Output Matrix (High 2030 DM)			VDM Output Matrix (High 2030 DS)			Reference Matrix (High 2030)	VDM Output Matrix (High 2030 DM)			VDM Output Matrix (High 2030 DS)		
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Employers Business	AM	539,327	539,079	-247	0.0%	539,182	-145	0.0%	45,312	44,556	-756	-1.7%	44,677	-635	-1.4%
	IP	470,058	470,013	-45	0.0%	470,013	-46	0.0%	31,348	31,148	-200	-0.6%	31,162	-186	-0.6%
	PM	647,829	644,499	-3,330	-0.5%	644,544	-3,285	-0.5%	45,822	44,571	-1,251	-2.7%	44,631	-1,191	-2.6%
	OP	185,354	186,018	664	0.4%	186,001	647	0.3%	12,554	13,024	470	3.7%	13,008	454	3.6%

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (High 2030)	VDM Output Matrix (High 2030 DM)			VDM Output Matrix (High 2030 DS)			Reference Matrix (High 2030)	VDM Output Matrix (High 2030 DM)			VDM Output Matrix (High 2030 DS)		
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Commute Low Income	AM	499,315	497,082	-2,233	-0.4%	497,061	-2,254	-0.5%	36,916	36,893	-23	-0.1%	36,868	-48	-0.1%
	IP	227,376	227,982	607	0.3%	228,001	625	0.3%	20,779	20,911	133	0.6%	20,931	152	0.7%
	PM	571,298	569,989	-1,309	-0.2%	570,000	-1,298	-0.2%	38,642	38,504	-138	-0.4%	38,514	-128	-0.3%
	OP	91,059	91,416	357	0.4%	91,417	357	0.4%	7,750	7,909	159	2.1%	7,910	160	2.1%
Car Commute Medium Income	AM	1,007,643	1,004,513	-3,130	-0.3%	1,004,608	-3,035	-0.3%	78,031	77,482	-549	-0.7%	77,580	-451	-0.6%
	IP	349,071	349,553	482	0.1%	349,549	478	0.1%	31,828	31,840	13	0.0%	31,839	11	0.0%
	PM	1,094,970	1,093,017	-1,953	-0.2%	1,093,063	-1,908	-0.2%	76,921	76,166	-755	-1.0%	76,213	-708	-0.9%
	OP	139,741	140,126	385	0.3%	140,115	374	0.3%	11,885	12,069	185	1.6%	12,058	173	1.5%
Car Commute High Income	AM	856,453	853,943	-2,510	-0.3%	853,890	-2,563	-0.3%	74,521	73,516	-1,006	-1.3%	73,471	-1,050	-1.4%
	IP	248,858	248,612	-247	-0.1%	248,620	-238	-0.1%	27,061	26,900	-161	-0.6%	26,913	-148	-0.5%
	PM	886,458	883,839	-2,619	-0.3%	884,013	-2,445	-0.3%	75,190	73,765	-1,425	-1.9%	73,947	-1,243	-1.7%
	OP	99,536	99,605	69	0.1%	99,601	65	0.1%	10,201	10,290	89	0.9%	10,284	83	0.8%
Car Other Low Income	AM	817,895	828,670	10,775	1.3%	828,874	10,979	1.3%	86,213	85,738	-475	-0.6%	86,000	-213	-0.2%
	IP	1,451,301	1,469,338	18,037	1.2%	1,469,299	17,998	1.2%	119,866	120,985	1,120	0.9%	121,018	1,153	1.0%
	PM	1,419,291	1,431,200	11,909	0.8%	1,431,330	12,039	0.8%	128,494	126,332	-2,162	-1.7%	126,526	-1,968	-1.5%
	OP	453,607	461,688	8,080	1.8%	461,661	8,054	1.8%	38,442	40,434	1,991	5.2%	40,404	1,961	5.1%

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (High 2030)	VDM Output Matrix (High 2030 DM)			VDM Output Matrix (High 2030 DS)			Reference Matrix (High 2030)	VDM Output Matrix (High 2030 DM)			VDM Output Matrix (High 2030 DS)		
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Other Medium Income	AM	873,063	877,451	4,388	0.5%	877,614	4,551	0.5%	95,365	93,590	-1,775	-1.9%	93,813	-1,552	-1.6%
	IP	1,160,854	1,169,079	8,225	0.7%	1,169,135	8,281	0.7%	111,448	111,473	25	0.0%	111,602	153	0.1%
	PM	1,430,361	1,432,782	2,420	0.2%	1,432,835	2,473	0.2%	143,123	139,418	-3,704	-2.6%	139,548	-3,574	-2.5%
	OP	405,950	410,835	4,885	1.2%	410,794	4,843	1.2%	38,842	40,400	1,559	4.0%	40,361	1,520	3.9%
Car Other High Income	AM	700,500	700,669	169	0.0%	700,769	269	0.0%	90,415	87,863	-2,552	-2.8%	88,045	-2,370	-2.6%
	IP	782,379	785,028	2,649	0.3%	785,023	2,645	0.3%	90,911	90,255	-657	-0.7%	90,325	-586	-0.6%
	PM	1,088,339	1,085,458	-2,880	-0.3%	1,085,694	-2,645	-0.2%	128,187	123,746	-4,441	-3.5%	124,081	-4,106	-3.2%
	OP	293,398	296,196	2,798	1.0%	296,158	2,759	0.9%	33,858	35,042	1,184	3.5%	34,999	1,142	3.4%
Car Total	AM	5,294,196	5,301,407	7,211	0.1%	5,301,998	7,801	0.1%	506,773	499,637	-7,136	-1.4%	500,454	-6,319	-1.2%
	IP	4,689,897	4,719,604	29,707	0.6%	4,719,640	29,743	0.6%	433,240	433,513	273	0.1%	433,789	550	0.1%
	PM	7,138,546	7,140,784	2,238	0.0%	7,141,477	2,931	0.0%	636,379	622,502	-13,877	-2.2%	623,460	-12,919	-2.0%
	OP	1,668,646	1,685,884	17,239	1.0%	1,685,745	17,100	1.0%	153,531	159,168	5,637	3.7%	159,024	5,493	3.6%
LGV	AM	946,757	946,757	0	0.0%	946,757	0	0.0%	117,717	117,717	0	0.0%	117,717	0	0.0%
	IP	817,694	817,694	0	0.0%	817,694	0	0.0%	89,034	89,034	0	0.0%	89,034	0	0.0%
	PM	683,439	683,439	0	0.0%	683,439	0	0.0%	90,908	90,908	0	0.0%	90,908	0	0.0%
	OP	329,649	329,649	0	0.0%	329,649	0	0.0%	35,363	35,363	0	0.0%	35,363	0	0.0%

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (High 2030)	VDM Output Matrix (High 2030 DM)			VDM Output Matrix (High 2030 DS)			Reference Matrix (High 2030)	VDM Output Matrix (High 2030 DM)			VDM Output Matrix (High 2030 DS)		
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
HGV	AM	145,570	145,570	0	0.0%	145,570	0	0.0%	59,490	59,490	0	0.0%	59,490	0	0.0%
	IP	163,554	163,554	0	0.0%	163,554	0	0.0%	65,462	65,462	0	0.0%	65,462	0	0.0%
	PM	94,339	94,339	0	0.0%	94,339	0	0.0%	37,501	37,501	0	0.0%	37,501	0	0.0%
	OP	64,903	64,903	0	0.0%	64,903	0	0.0%	25,664	25,664	0	0.0%	25,664	0	0.0%

## Highway Assignment Model (HAM) Convergence Statistics

D.6.4 Table D.109 to Table D.111 provide the highway assignment model convergence statistics for the 2030 high growth DM forecasts. Table D.112 to Table D.114 provide the highway assignment model convergence statistics for the 2030 high growth DS forecasts.

**Table D.109 HAM Convergence Statistics – 2030 High Growth DM AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
63	0.0035	0.0066	98.7	99.2
64	0.0037	0.0058	98.6	99.3
65	0.0050	0.0055	98.8	99.4
66	0.0037	0.0049	98.6	99.4

**Table D.110 HAM Convergence Statistics – 2030 High Growth DM Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
47	0.0034	0.0043	98.7	99.6
48	0.0028	0.0035	98.6	99.6
49	0.0039	0.0048	99.0	99.6
50	0.0035	0.0032	98.5	99.5

**Table D.111 HAM Convergence Statistics – 2030 High Growth DM PM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
65	0.0029	0.0061	98.9	99.2
66	0.0039	0.0056	98.6	99.2
67	0.0042	0.0043	98.8	99.3
68	0.0038	0.0045	98.8	99.4

**Table D.112 HAM Convergence Statistics – 2030 High Growth DS AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
75	0.0032	0.0061	99.1	99.4
76	0.0046	0.0059	98.9	99.4
77	0.0045	0.0050	99.0	99.4
78	0.0032	0.0047	99.1	99.5



**Table D.113 HAM Convergence Statistics – 2030 High Growth DS Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
36	0.0031	0.0042	98.5	99.5
37	0.0031	0.0042	98.6	99.5
38	0.0038	0.0040	98.8	99.6
39	0.0030	0.0041	98.5	99.5

**Table D.114 HAM Convergence Statistics – 2030 High Growth DS PM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
55	0.0039	0.0061	98.6	99.1
56	0.0051	0.0052	98.5	99.2
57	0.0040	0.0051	98.8	99.3
58	0.0044	0.0047	98.7	99.4

D.6.5 These tables demonstrate that the LTAM has achieved the TAG convergence targets in all time periods for this scenario and year.

### **Movement Patterns Using the Crossings**

D.6.6 Plate D.49 to Plate D.57 provide select link analysis of movements using the Dartford and Lower Thames Crossing for the Do Minimum and Do Something scenarios for each of the model time periods. These diagrams show the pattern of movements using each of the crossings in each of the time periods. Table D.15 to Table D.117 provide a summary of the main corridors using each of the crossings and a comparison between the DM and DS scenarios for each time period.

### Plate D.49 Select Link Analysis – Dartford Crossing DM 2030 High AM Peak



### Plate D.50 Select Link Analysis – Dartford Crossing DS 2030 High AM Peak



### Plate D.51 Select Link Analysis – Lower Thames Crossing DS 2030 High AM Peak



**Table D.115 Select Link Analysis – Summary of Primary Corridors of Movement  
2030 High AM Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,631	17%	3,341	24%	709	27%
	Local (Outside M25)	2,005	13%	1,915	14%	-90	-4%
	M25 South (J2-3)	7,442	48%	7,366	53%	-77	-1%
	A2/M2 to/from Kent	3,403	22%	1,227	9%	-2175	-64%
Select Link	Dartford Crossing	<b>15,481</b>	<b>100%</b>	<b>13,849</b>	<b>100%</b>	<b>-1632</b>	<b>-11%</b>
North of River	London North	2,235	14%	2,802	20%	568	25%
	Local Traffic	1,503	10%	1,472	11%	-31	-2%
	M25 North (J30-29)	8,634	56%	7,173	52%	-1461	-17%
	A13 to/from Essex	3,109	20%	2,402	17%	-708	-23%
South of River	Local Traffic	n/a	n/a	772	9%	n/a	n/a
	A2 West of LTC	n/a	n/a	495	6%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	6,946	85%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>8,214</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	715	9%	n/a	n/a
	A13 West of LTC	n/a	n/a	68	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	3,300	40%	n/a	n/a
	M25 North of LTC	n/a	n/a	4,131	50%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

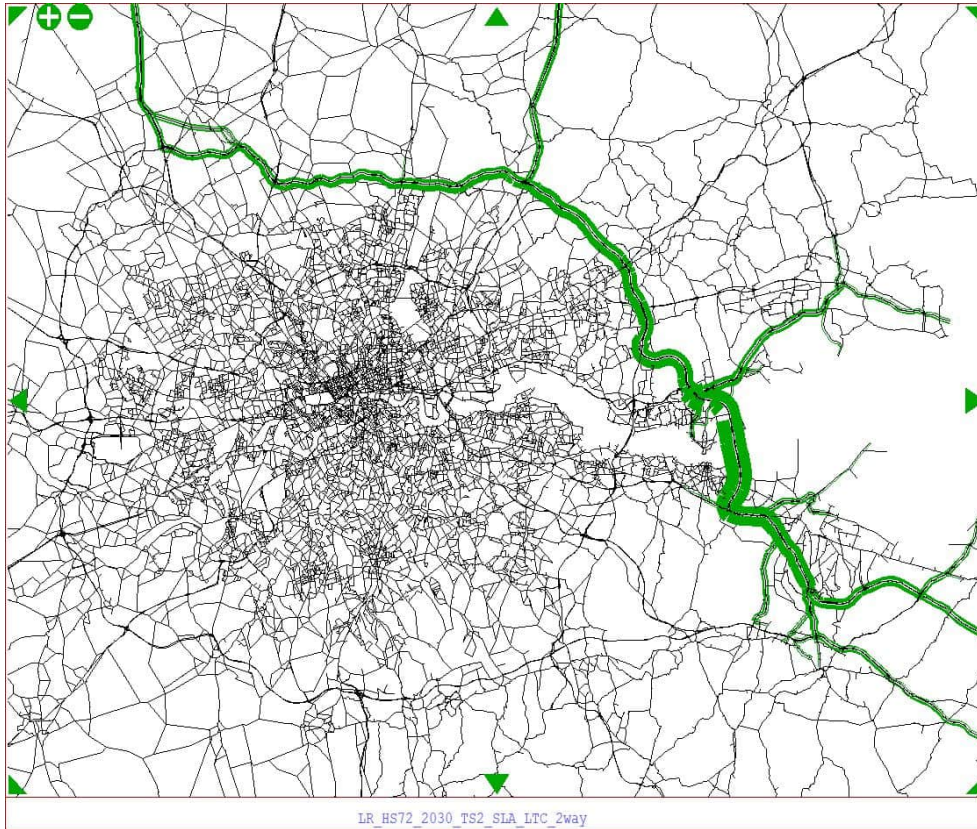
### Plate D.52 Select Link Analysis – Dartford Crossing DM 2030 High Inter Peak



### Plate D.53 Select Link Analysis – Dartford Crossing DS 2030 High Inter Peak



### Plate D.54 Select Link Analysis – Lower Thames Crossing DS 2030 High Inter Peak

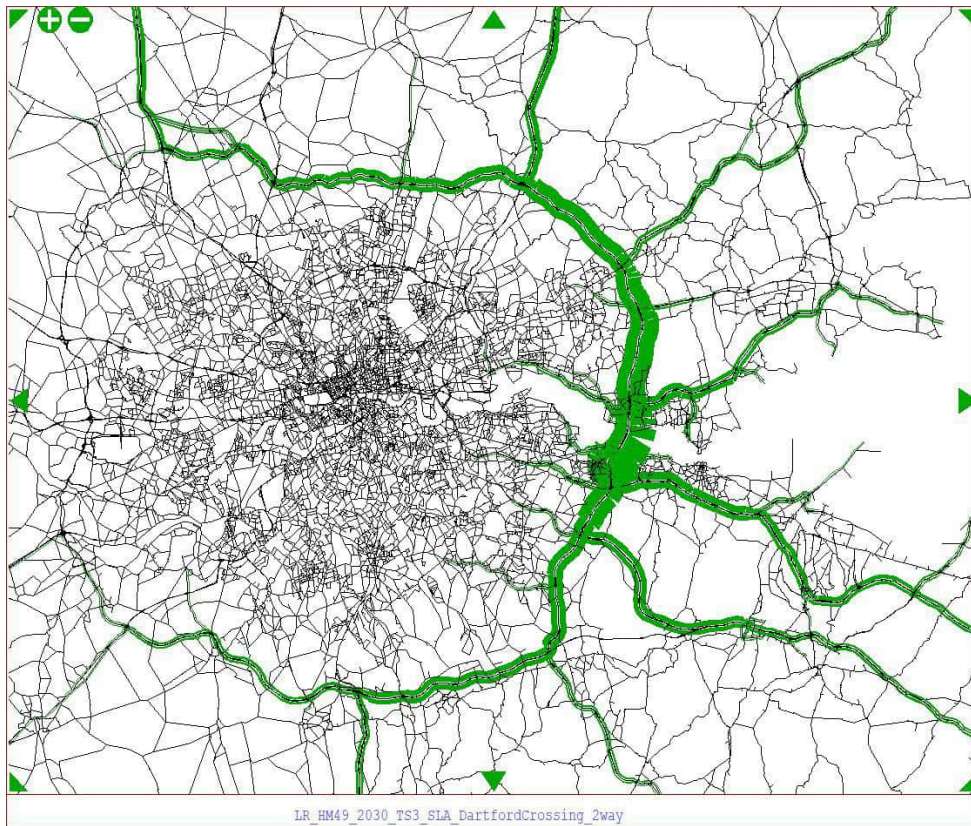


**Table D.116 Select Link Analysis – Summary of Primary Corridors of Movement  
2030 High Inter Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,232	16%	2,588	23%	356	16%
	Local (Outside M25)	1,435	10%	1,392	12%	-44	-3%
	M25 South (J2-3)	6,805	48%	6,340	55%	-465	-7%
	A2/M2 to/from Kent	3,762	26%	1,132	10%	-2630	-70%
Select Link	Dartford Crossing	<b>14,234</b>	<b>100%</b>	<b>11,451</b>	<b>100%</b>	<b>-2783</b>	<b>-20%</b>
North of River	London North	1,750	12%	2,147	19%	397	23%
	Local Traffic	1,490	10%	1,522	13%	32	2%
	M25 North (J30-29)	7,866	55%	5,440	48%	-2426	-31%
	A13 to/from Essex	3,129	22%	2,343	20%	-786	-25%
South of River	Local Traffic	n/a	n/a	729	11%	n/a	n/a
	A2 West of LTC	n/a	n/a	375	5%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	5,754	84%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>6,858</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	583	9%	n/a	n/a
	A13 West of LTC	n/a	n/a	25	0%	n/a	n/a
	A13 East of LTC	n/a	n/a	2,610	38%	n/a	n/a
	M25 North of LTC	n/a	n/a	3,639	53%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

### Plate D.55 Select Link Analysis – Dartford Crossing DM 2030 High PM Peak

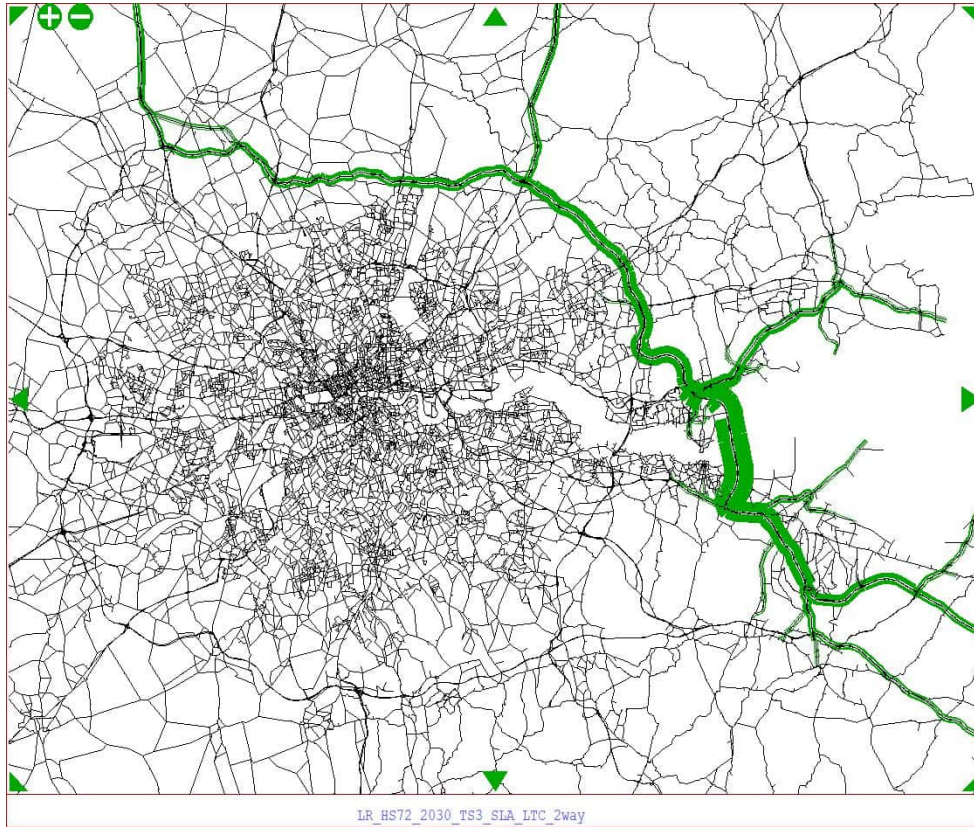


### Plate D.56 Select Link Analysis – Dartford Crossing DS 2030 High PM Peak





### Plate D.57 Select Link Analysis – Lower Thames Crossing DS 2030 High PM Peak



**Table D.117 Select Link Analysis – Summary of Primary Corridors of Movement  
2030 High PM Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,456	16%	2,954	24%	499	20%
	Local (Outside M25)	1,714	12%	1,571	13%	-143	-8%
	M25 South (J2-3)	6,909	46%	6,472	52%	-437	-6%
	A2/M2 to/from Kent	3,821	26%	1,517	12%	-2304	-60%
Select Link	Dartford Crossing	<b>14,900</b>	<b>100%</b>	<b>12,513</b>	<b>100%</b>	<b>-2386</b>	<b>-16%</b>
North of River	London North	2,379	16%	2,939	23%	561	24%
	Local Traffic	1,455	10%	1,521	12%	66	5%
	M25 North (J30-29)	7,879	53%	5,765	46%	-2114	-27%
	A13 to/from Essex	3,186	21%	2,288	18%	-899	-28%
South of River	Local Traffic	n/a	n/a	1,093	13%	n/a	n/a
	A2 West of LTC	n/a	n/a	632	8%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	6,443	79%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>8,167</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	768	9%	n/a	n/a
	A13 West of LTC	n/a	n/a	30	0%	n/a	n/a
	A13 East of LTC	n/a	n/a	3,736	46%	n/a	n/a
	M25 North of LTC	n/a	n/a	3,632	44%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

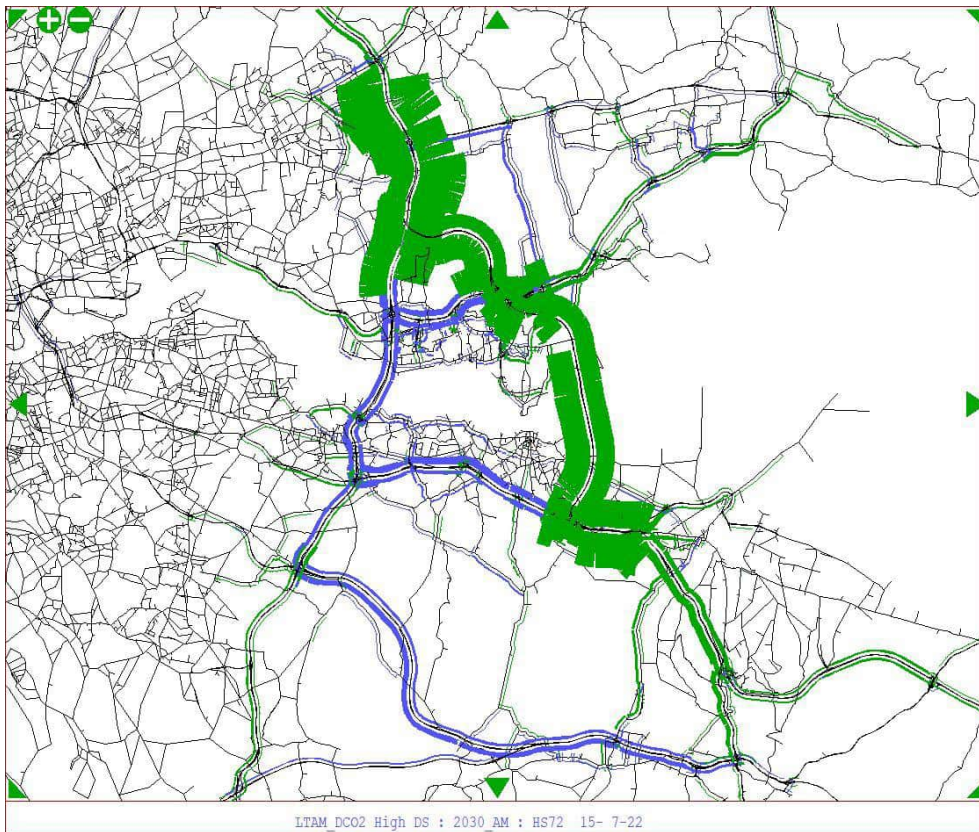
<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

## DM Vs DS Flow Comparisons

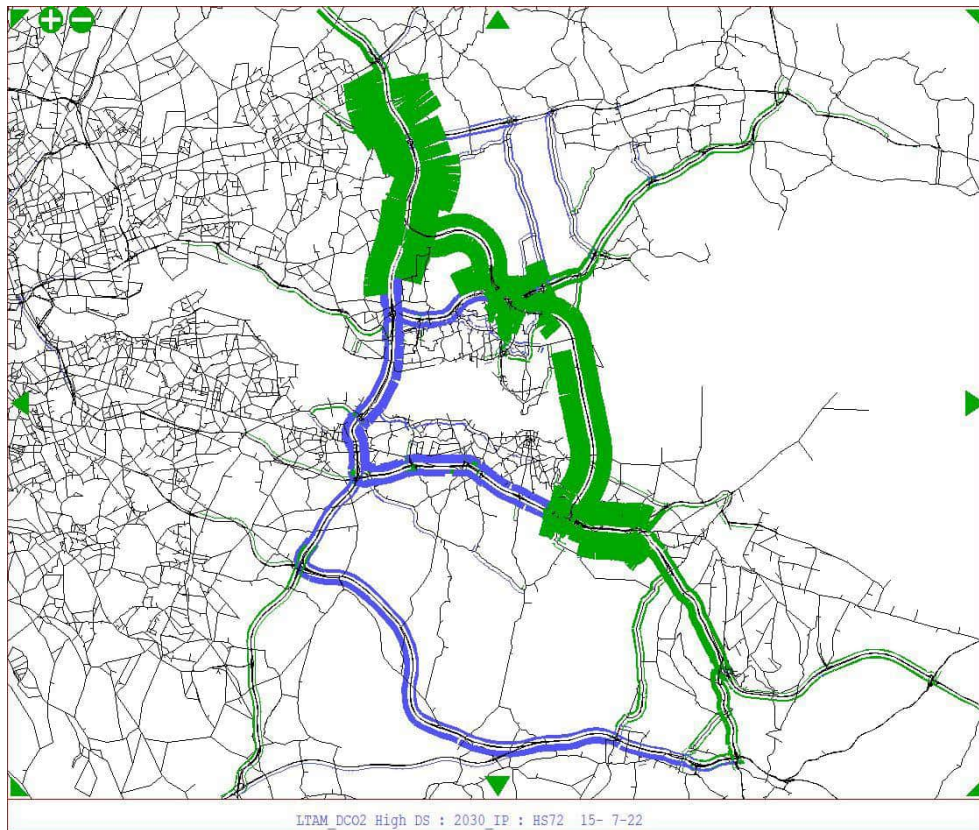
**D.6.7** The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Plate D.58 to Plate D.60 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCUs per hour have been excluded from the colouring.

**D.6.8** Table D.118 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link approaching the TMC. Table D.119 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link after the TMC.

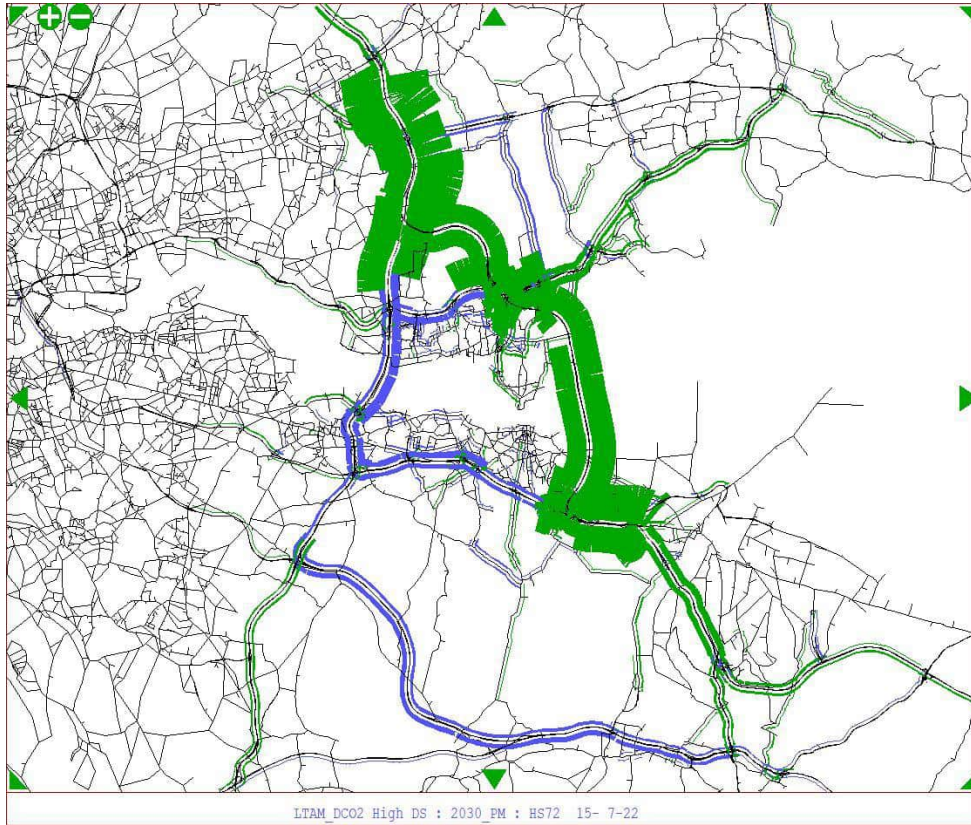
**Plate D.58 Actual Flow Comparison Plot – 2030 High Growth DM Vs DS AM Peak**



**Plate D.59 Actual Flow Comparison Plot – 2030 High Growth DM Vs DS Inter Peak**



### Plate D.60 Actual Flow Comparison Plot – 2030 High Growth DM Vs DS PM Peak



**Table D.118 Cross River Traffic Flows (NB Flows Approaching TMC) – 2030 High Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,353	3,459	105	3%	1,758	1,656	-102	-6%	3,389	2,752	-637	-19%	8,500	7,867	-633	-7%	8,500	1.00	0.93
		IP	3,249	2,747	-502	-15%	877	728	-148	-17%	3,219	2,163	-1,056	-33%	7,344	5,638	-1,706	-23%	8,500	0.86	0.66
		PM	4,764	4,000	-764	-16%	1,155	891	-263	-23%	2,219	1,444	-776	-35%	8,138	6,335	-1,803	-22%	8,500	0.96	0.75
	LTC	AM	0	2,105	-	-	0	334	-	-	0	1,061	-	-	0	3,500	-	-	6,360	-	0.55
		IP	0	1,671	-	-	0	181	-	-	0	1,124	-	-	0	2,977	-	-	6,360	-	0.47
		PM	0	3,363	-	-	0	324	-	-	0	829	-	-	0	4,516	-	-	6,360	-	0.71
	Total	AM	3,353	5,563	2,210	66%	1,758	1,990	233	13%	3,389	3,813	424	13%	8,500	11,367	2,867	34%	14,860	-	0.76
		IP	3,249	4,418	1,169	36%	877	910	33	4%	3,219	3,287	68	2%	7,344	8,615	1,271	17%	14,860	-	0.58
		PM	4,764	7,363	2,600	55%	1,155	1,215	60	5%	2,219	2,273	53	2%	8,138	10,851	2,713	33%	14,860	-	0.73
NB	Dartford*	AM	3,604	3,252	-352	-10%	1,478	1,042	-436	-30%	2,566	1,688	-879	-34%	7,649	5,982	-1,667	-22%	6,981	1.10	0.86
		IP	3,027	2,838	-189	-6%	983	725	-258	-26%	3,529	2,250	-1,279	-36%	7,539	5,813	-1,726	-23%	6,890	1.09	0.84
		PM	4,360	3,969	-391	-9%	1,020	831	-189	-19%	2,091	1,378	-713	-34%	7,471	6,178	-1,293	-17%	6,762	1.10	0.91
	LTC	AM	0	3,016	-	-	0	597	-	-	0	1,102	-	-	0	4,714	-	-	6,360	-	0.74
		IP	0	2,014	-	-	0	344	-	-	0	1,523	-	-	0	3,881	-	-	6,360	-	0.61

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
		PM	0	2,605	-	-	0	265	-	-	0	780	-	-	0	3,651	-	-	6,360	-	0.57
	Total	AM	3,604	6,268	2,664	74%	1,478	1,638	160	11%	2,566	2,790	223	9%	7,649	10,696	3,047	40%	13,341	-	0.80
		IP	3,027	4,852	1,825	60%	983	1,069	86	9%	3,529	3,773	244	7%	7,539	9,694	2,155	29%	13,250	-	0.73
		PM	4,360	6,574	2,214	51%	1,020	1,096	76	7%	2,091	2,159	68	3%	7,471	9,829	2,358	32%	13,122	-	0.75

\* Flows are extracted for the link approaching the TMC

**Table D.119 Cross River Traffic Flows (NB Flows After TMC) – 2030 High Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,353	3,459	105	3%	1,758	1,656	-102	-6%	3,389	2,752	-637	-19%	8,500	7,867	-633	-7%	8,500	1.00	0.93
		IP	3,249	2,747	-502	-15%	877	728	-148	-17%	3,219	2,163	-1,056	-33%	7,344	5,638	-1,706	-23%	8,500	0.86	0.66
		PM	4,764	4,000	-764	-16%	1,155	891	-263	-23%	2,219	1,444	-776	-35%	8,138	6,335	-1,803	-22%	8,500	0.96	0.75
	LTC	AM	0	2,105	-	-	0	334	-	-	0	1,061	-	-	0	3,500	-	-	6,360	-	0.55
		IP	0	1,671	-	-	0	181	-	-	0	1,124	-	-	0	2,977	-	-	6,360	-	0.47
		PM	0	3,363	-	-	0	324	-	-	0	829	-	-	0	4,516	-	-	6,360	-	0.71
	Total	AM	3,353	5,563	2,210	66%	1,758	1,990	233	13%	3,389	3,813	424	13%	8,500	11,367	2,867	34%	14,860	-	0.76
		IP	3,249	4,418	1,169	36%	877	910	33	4%	3,219	3,287	68	2%	7,344	8,615	1,271	17%	14,860	-	0.58
		PM	4,764	7,363	2,600	55%	1,155	1,215	60	5%	2,219	2,273	53	2%	8,138	10,851	2,713	33%	14,860	-	0.73

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
NB	Dartford*	AM	3,293	3,252	-41	-1%	1,350	1,042	-308	-23%	2,338	1,688	-651	-28%	6,981	5,982	-999	-14%	6,981	1.00	0.86
		IP	2,767	2,838	71	3%	899	725	-174	-19%	3,224	2,250	-974	-30%	6,890	5,813	-1,077	-16%	6,890	1.00	0.84
		PM	3,945	3,969	23	1%	923	831	-92	-10%	1,893	1,378	-515	-27%	6,762	6,178	-584	-9%	6,762	1.00	0.91
	LTC	AM	0	3,016	-	-	0	597	-	-	0	1,102	-	-	0	4,714	-	-	6,360	-	0.74
		IP	0	2,014	-	-	0	344	-	-	0	1,523	-	-	0	3,881	-	-	6,360	-	0.61
		PM	0	2,605	-	-	0	265	-	-	0	780	-	-	0	3,651	-	-	6,360	-	0.57
	Total	AM	3,293	6,268	2,975	90%	1,350	1,638	289	21%	2,338	2,790	451	19%	6,981	10,696	3,715	53%	13,341	-	0.80
		IP	2,767	4,852	2,085	75%	899	1,069	170	19%	3,224	3,773	549	17%	6,890	9,694	2,804	41%	13,250	-	0.73
		PM	3,945	6,574	2,629	67%	923	1,096	173	19%	1,893	2,159	266	14%	6,762	9,829	3,067	45%	13,122	-	0.75

\* Flows are extracted for the link after the TMC

D.6.9 The movements considered critical to understanding the impacts of the scheme are the same as those described in Chapter 8 of the main document. Table D.120 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

**Table D.120 Key Corridor Traffic Flows – 2030 High Growth DM Vs DS (Hourly Flows in PCUs)**

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	7,541	9,180	0.82	8,825	9,180	0.96	1,284	17%
		IP	6,737	9,180	0.73	7,640	9,180	0.83	903	13%
		PM	6,901	9,180	0.75	7,725	9,180	0.84	824	12%
	M25 J28 to M25 J29 (SB)	AM	7,739	9,115	0.85	7,898	9,180	0.86	159	2%
		IP	7,348	9,115	0.81	7,679	9,180	0.84	331	5%
		PM	7,663	9,115	0.84	8,218	9,180	0.90	554	7%
B	M25 J4 to M25 J3 (NB)	AM	5,486	6,850	0.80	5,686	6,850	0.83	200	4%
		IP	5,476	6,850	0.80	5,701	6,850	0.83	225	4%
		PM	6,112	6,850	0.89	6,281	6,850	0.92	169	3%
	M25 J3 to M25 J4 (SB)	AM	6,751	6,850	0.99	6,843	6,850	1.00	93	1%
		IP	5,178	6,850	0.76	5,284	6,850	0.77	106	2%
		PM	5,660	6,850	0.83	5,916	6,850	0.86	256	5%
C	A13 A126 to A1012 (EB)	AM	4,996	6,309	0.79	4,038	6,294	0.64	-958	-19%
		IP	5,077	6,298	0.81	4,348	6,282	0.69	-730	-14%
		PM	5,746	6,264	0.92	5,644	6,237	0.90	-102	-2%
	A13 A1012 to A126 (WB)	AM	6,145	6,360	0.97	5,422	6,360	0.85	-723	-12%
		IP	5,460	6,360	0.86	4,577	6,360	0.72	-883	-16%
		PM	5,812	6,360	0.91	4,775	6,360	0.75	-1,037	-18%
D	A13 Orsett Cock to Manor Way (EB)	AM	4,698	6,370	0.74	5,249	6,370	0.82	551	12%
		IP	4,108	6,370	0.64	4,792	6,370	0.75	684	17%
		PM	4,970	6,370	0.78	5,855	6,370	0.92	885	18%
	A13 Manor Way to Orsett Cock (WB)	AM	5,180	6,220	0.83	5,827	6,220	0.94	647	12%
		IP	4,259	6,220	0.68	4,950	6,220	0.80	690	16%
		PM	4,607	6,220	0.74	5,722	6,220	0.92	1,116	24%



Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
E	A2 A227 to Gravesend East (EB)	AM	5,978	9,235	0.65	4,941	9,229	0.54	-1,037	-17%
		IP	6,267	9,188	0.68	5,084	9,177	0.55	-1,182	-19%
		PM	9,035	9,183	0.98	8,550	9,166	0.93	-485	-5%
	A2 Gravesend East to A227 (WB)	AM	7,079	7,243	0.98	6,411	7,004	0.92	-668	-9%
		IP	5,881	7,054	0.83	4,917	6,886	0.71	-964	-16%
		PM	5,931	6,832	0.87	5,438	6,719	0.81	-493	-8%
F	M2 J1 to M2 J2 (EB)	AM	5,301	8,540	0.62	6,108	8,381	0.73	807	15%
		IP	4,490	8,655	0.52	5,265	8,504	0.62	775	17%
		PM	6,310	8,560	0.74	7,662	8,450	0.91	1,353	21%
	M2 J2 to M2 J1 (WB)	AM	5,848	8,794	0.67	7,381	8,614	0.86	1,533	26%
		IP	4,090	8,842	0.46	5,674	8,775	0.65	1,584	39%
		PM	5,167	8,922	0.58	6,251	8,726	0.72	1,085	21%
G	M20 J3 to M20 J4 (EB)	AM	5,778	9,115	0.63	5,369	9,115	0.59	-409	-7%
		IP	5,753	9,115	0.63	5,303	9,115	0.58	-450	-8%
		PM	8,613	9,115	0.94	8,154	9,115	0.89	-459	-5%
	M20 J4 to M20 J3 (WB)	AM	8,624	9,115	0.95	7,842	9,115	0.86	-782	-9%
		IP	5,630	9,115	0.62	4,514	9,115	0.50	-1,116	-20%
		PM	5,620	9,115	0.62	4,807	9,115	0.53	-813	-14%

### DM Vs DS Journey Time Comparisons

- D.6.10 The same link based and route based journey time comparisons introduced under Chapter 8 of the main document are repeated for this year scenario combination.
- D.6.11 The link based journey time comparisons for this scenario are presented in Table D.121 to Table D.123.
- D.6.12 Table D.124 to Table D.129 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

**Table D.121 Link Based Journey Time Scenario Comparison (2030 High Growth DM Vs DS) AM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	16.6	84.8	23.5	17.0	83.0	0.0	0.4	-1.8	-0.1%	2.1%	-2.2%
	B to D	M25 J29	M25 J2	18.8	19.7	57.4	18.9	14.9	76.2	0.1	-4.8	18.8	0.3%	-24.5%	32.8%
	D to F	M25 J2	M25 J7	37.7	29.5	76.8	37.7	31.2	72.5	0.0	1.8	-4.3	0.0%	5.9%	-5.6%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	25.4	90.0	38.0	25.6	89.0	0.0	0.3	-0.9	0.0%	1.1%	-1.0%
	D to B	M25 J2	M25 J29	18.7	20.2	55.6	18.8	13.9	81.4	0.1	-6.3	25.7	0.6%	-31.2%	46.2%
	B to A	M25 J29	M25 J26	23.2	17.1	81.3	23.1	19.9	69.8	-0.1	2.8	-11.5	-0.3%	16.2%	-14.2%
A13 EB	C to G	M25 J30	A1089	5.2	5.0	62.7	5.3	4.2	75.7	0.0	-0.8	13.0	0.9%	-16.4%	20.7%
	G to H	A1089	A130	15.7	11.8	79.9	15.7	12.9	72.8	-0.1	1.1	-7.1	-0.4%	9.3%	-8.9%
A13 WB	H to G	A130	A1089	15.3	14.8	61.7	15.2	16.5	55.0	-0.1	1.7	-6.7	-0.7%	11.5%	-10.9%
	G to C	A1089	M25 J30	5.5	8.9	37.0	5.6	5.8	57.7	0.1	-3.1	20.7	1.6%	-34.8%	55.9%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	9.2	99.4	15.3	8.9	103.8	0.1	-0.4	4.4	0.5%	-3.8%	4.5%
	I to J	M2 J1	M2 J4	14.7	8.5	104.2	14.7	8.7	101.6	0.0	0.2	-2.6	0.0%	2.6%	-2.5%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	9.1	99.9	15.1	10.0	90.7	-0.1	0.9	-9.1	-0.7%	9.3%	-9.1%
	I to D	M2 J1	M25 J2	14.8	18.3	48.5	14.8	13.2	67.6	0.1	-5.1	19.1	0.6%	-27.8%	39.4%
M20 EB	E to K	M25 J3	M20 J8	35.3	20.3	104.5	35.3	20.1	105.6	0.0	-0.2	1.1	0.0%	-1.1%	1.1%
M20 WB	K to E	M20 J8	M25 J3	35.3	25.1	84.5	35.3	23.2	91.4	0.0	-1.9	6.9	0.0%	-7.5%	8.1%

**Table D.122 Link Based Journey Time Scenario Comparison (2030 High Growth DM Vs DS) Inter Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	16.1	87.9	23.5	16.4	85.8	0.0	0.4	-2.1	-0.1%	2.4%	-2.4%
	B to D	M25 J29	M25 J2	18.8	13.8	82.0	18.9	12.3	91.7	0.1	-1.4	9.8	0.3%	-10.4%	11.9%
	D to F	M25 J2	M25 J7	37.7	24.0	94.3	37.7	24.0	94.3	0.0	0.0	0.1	0.0%	-0.1%	0.1%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	24.7	92.2	38.0	25.1	91.0	0.0	0.3	-1.2	0.0%	1.3%	-1.3%
	D to B	M25 J2	M25 J29	18.7	18.8	59.6	18.8	13.3	85.1	0.1	-5.5	25.4	0.6%	-29.4%	42.6%
	B to A	M25 J29	M25 J26	23.2	14.5	96.0	23.1	15.8	88.0	-0.1	1.3	-8.1	-0.3%	8.9%	-8.4%
A13 EB	C to G	M25 J30	A1089	5.2	5.2	59.9	5.3	4.3	73.3	0.0	-0.9	13.4	0.9%	-17.6%	22.4%
	G to H	A1089	A130	15.7	11.3	83.7	15.7	12.2	77.1	-0.1	0.9	-6.6	-0.4%	8.1%	-7.9%
A13 WB	H to G	A130	A1089	15.3	11.3	81.1	15.2	12.2	74.8	-0.1	0.9	-6.3	-0.7%	7.7%	-7.8%
	G to C	A1089	M25 J30	5.5	6.1	54.3	5.6	4.7	71.7	0.1	-1.4	17.4	1.6%	-23.1%	32.1%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	9.3	98.9	15.3	8.9	104.0	0.1	-0.4	5.2	0.5%	-4.5%	5.2%
	I to J	M2 J1	M2 J4	14.7	8.3	106.3	14.7	8.4	104.6	0.0	0.1	-1.7	0.0%	1.6%	-1.6%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	8.5	107.3	15.1	8.7	103.9	-0.1	0.2	-3.4	-0.7%	2.6%	-3.1%
	I to D	M2 J1	M25 J2	14.8	11.1	79.5	14.8	9.0	99.5	0.1	-2.2	20.0	0.6%	-19.6%	25.1%
M20 EB	E to K	M25 J3	M20 J8	35.3	20.0	105.8	35.3	19.9	106.7	0.0	-0.2	0.9	0.0%	-0.8%	0.8%
M20 WB	K to E	M20 J8	M25 J3	35.3	20.2	104.8	35.3	19.8	106.9	0.0	-0.4	2.0	0.0%	-1.9%	1.9%

**Table D.123 Link Based Journey Time Scenario Comparison (2030 High Growth DM Vs DS) PM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)
M25 clockwise	A to B	M25 J26	M25 J29	23.5	17.8	79.1	23.5	19.1	73.7	0.0	1.3	-5.5	-0.1%	7.3%	-6.9%
	B to D	M25 J29	M25 J2	18.8	16.7	67.8	18.9	13.1	86.5	0.1	-3.6	18.7	0.3%	-21.4%	27.6%
	D to F	M25 J2	M25 J7	37.7	24.0	94.3	37.7	24.4	92.9	0.0	0.4	-1.4	0.0%	1.5%	-1.4%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	28.4	80.3	38.0	29.0	78.5	0.0	0.6	-1.8	0.0%	2.2%	-2.2%
	D to B	M25 J2	M25 J29	18.7	18.4	61.1	18.8	13.6	83.2	0.1	-4.8	22.1	0.6%	-26.1%	36.2%
	B to A	M25 J29	M25 J26	23.2	14.4	96.9	23.1	15.5	89.8	-0.1	1.1	-7.2	-0.3%	7.7%	-7.4%
A13 EB	C to G	M25 J30	A1089	5.2	8.3	37.9	5.3	5.7	55.8	0.0	-2.6	17.9	0.9%	-31.5%	47.4%
	G to H	A1089	A130	15.7	13.1	72.3	15.7	14.5	64.6	-0.1	1.5	-7.6	-0.4%	11.4%	-10.5%
A13 WB	H to G	A130	A1089	15.3	11.2	81.5	15.2	13.6	66.7	-0.1	2.4	-14.8	-0.7%	21.4%	-18.2%
	G to C	A1089	M25 J30	5.5	6.9	47.5	5.6	4.9	68.1	0.1	-2.0	20.6	1.6%	-29.1%	43.3%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	14.7	62.3	15.3	11.1	82.8	0.1	-3.6	20.6	0.5%	-24.5%	33.0%
	I to J	M2 J1	M2 J4	14.7	9.5	93.2	14.7	11.4	77.2	0.0	2.0	-16.1	0.0%	20.8%	-17.2%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	8.8	103.8	15.1	9.0	100.5	-0.1	0.2	-3.4	-0.7%	2.7%	-3.2%
	I to D	M2 J1	M25 J2	14.8	13.2	67.3	14.8	10.3	86.3	0.1	-2.8	19.0	0.6%	-21.5%	28.2%
M20 EB	E to K	M25 J3	M20 J8	35.3	25.3	83.7	35.3	24.1	87.9	0.0	-1.2	4.2	0.0%	-4.7%	5.0%
M20 WB	K to E	M20 J8	M25 J3	35.3	20.4	103.8	35.3	20.1	105.7	0.0	-0.4	1.9	0.0%	-1.8%	1.8%

**Table D.124 Route Based Journey Time Comparison North to South Movements (2030 High Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 7	Cheshunt	Bexley	61.8	63.2	58.7	61.9	60.7	61.1	0.0	-2.4	2.4	0.0%	-3.9%	4.1%
1 to 8	Cheshunt	Godstone	91.5	82.1	66.9	91.5	79.3	69.3	0.0	-2.8	2.4	0.0%	-3.4%	3.5%
1 to 9	Cheshunt	Southfleet	62.1	58.4	63.7	62.2	53.6	69.6	0.1	-4.8	5.8	0.2%	-8.2%	9.1%
1 to 10	Cheshunt	Maidstone	88.2	76.1	69.5	83.1	72.6	68.7	-5.1	-3.5	-0.9	-5.8%	-4.6%	-1.2%
1 to 11	Cheshunt	Rochester	74.4	75.5	59.1	70.2	65.4	64.4	-4.2	-10.1	5.3	-5.6%	-13.4%	9.0%
1 to 12	Cheshunt	Rainham	91.4	81.1	67.7	87.3	71.0	73.8	-4.1	-10.1	6.1	-4.5%	-12.4%	9.1%
2 to 7	Romford	Bexley	31.9	53.1	36.0	35.6	47.7	44.8	3.8	-5.3	8.8	11.8%	-10.0%	24.3%
2 to 8	Romford	Godstone	61.5	71.9	51.3	65.3	66.3	59.1	3.8	-5.7	7.8	6.1%	-7.9%	15.2%
2 to 9	Romford	Southfleet	32.1	48.3	39.9	35.9	40.6	53.1	3.8	-7.7	13.2	12.0%	-15.9%	33.2%
2 to 10	Romford	Maidstone	58.2	66.0	52.9	56.8	59.6	57.2	-1.4	-6.4	4.3	-2.4%	-9.7%	8.1%
2 to 11	Romford	Rochester	44.5	65.4	40.8	44.0	52.4	50.4	-0.5	-13.0	9.6	-1.1%	-19.9%	23.5%
2 to 12	Romford	Rainham	61.4	70.9	52.0	61.1	58.0	63.2	-0.4	-12.9	11.2	-0.6%	-18.3%	21.6%
3 to 7	Brentwood	Bexley	33.0	44.3	44.7	32.9	40.1	49.3	-0.1	-4.2	4.5	-0.3%	-9.4%	10.1%
3 to 8	Brentwood	Godstone	62.7	63.1	59.6	62.6	58.6	64.0	-0.1	-4.5	4.5	-0.1%	-7.1%	7.5%
3 to 9	Brentwood	Southfleet	33.2	39.5	50.5	33.2	33.0	60.5	0.0	-6.5	10.0	0.0%	-16.5%	19.8%
3 to 10	Brentwood	Maidstone	59.3	57.2	62.3	54.1	51.9	62.5	-5.2	-5.2	0.3	-8.8%	-9.2%	0.4%
3 to 11	Brentwood	Rochester	45.6	56.6	48.3	41.3	44.7	55.4	-4.3	-11.9	7.0	-9.5%	-21.0%	14.5%
3 to 12	Brentwood	Rainham	62.6	62.1	60.5	58.4	50.3	69.6	-4.2	-11.8	9.1	-6.7%	-19.0%	15.1%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
4 to 7	Basildon	Bexley	39.7	56.2	42.4	39.6	52.4	45.4	-0.1	-3.8	3.0	-0.2%	-6.7%	7.0%
4 to 8	Basildon	Godstone	69.4	75.0	55.5	69.3	70.9	58.6	-0.1	-4.1	3.1	-0.1%	-5.5%	5.7%
4 to 9	Basildon	Southfleet	39.9	51.4	46.6	35.0	40.2	52.2	-5.0	-11.2	5.5	-12.5%	-21.8%	11.9%
4 to 10	Basildon	Maidstone	66.0	69.1	57.4	49.2	57.2	51.6	-16.9	-11.9	-5.8	-25.5%	-17.2%	-10.1%
4 to 11	Basildon	Rochester	52.3	68.5	45.8	36.5	50.0	43.8	-15.8	-18.5	-2.0	-30.2%	-27.0%	-4.3%
4 to 12	Basildon	Rainham	69.3	74.0	56.2	53.6	55.6	57.9	-15.7	-18.4	1.7	-22.6%	-24.9%	3.0%
5 to 7	Tilbury Port	Bexley	28.3	40.7	41.7	28.3	37.5	45.3	0.0	-3.1	3.5	0.0%	-7.7%	8.4%
5 to 8	Tilbury Port	Godstone	58.0	59.6	58.4	58.0	56.1	62.0	0.0	-3.5	3.6	0.0%	-5.8%	6.2%
5 to 9	Tilbury Port	Southfleet	28.5	35.9	47.7	27.7	25.0	66.4	-0.8	-10.9	18.7	-2.9%	-30.3%	39.3%
5 to 10	Tilbury Port	Maidstone	54.6	53.6	61.2	41.9	42.1	59.8	-12.7	-11.5	-1.3	-23.3%	-21.5%	-2.2%
5 to 11	Tilbury Port	Rochester	40.9	53.0	46.3	29.3	34.8	50.4	-11.6	-18.2	4.2	-28.4%	-34.3%	9.0%
5 to 12	Tilbury Port	Rainham	57.9	58.6	59.3	46.4	40.4	68.8	-11.5	-18.1	9.5	-19.9%	-31.0%	16.0%
6 to 7	DP World	Bexley	32.1	44.1	43.7	32.1	38.9	49.5	0.0	-5.1	5.8	0.0%	-11.7%	13.2%
6 to 8	DP World	Godstone	61.8	63.0	58.9	61.8	57.5	64.5	0.0	-5.5	5.6	0.0%	-8.7%	9.5%
6 to 9	DP World	Southfleet	32.3	39.3	49.4	29.0	24.9	70.1	-3.3	-14.5	20.7	-10.2%	-36.8%	42.0%
6 to 10	DP World	Maidstone	58.4	57.0	61.5	43.3	41.9	62.0	-15.2	-15.1	0.5	-26.0%	-26.5%	0.8%
6 to 11	DP World	Rochester	44.7	56.4	47.5	30.6	34.6	53.0	-14.1	-21.8	5.5	-31.5%	-38.6%	11.5%
6 to 12	DP World	Rainham	61.7	61.9	59.8	47.7	40.2	71.1	-14.0	-21.7	11.4	-22.7%	-35.0%	19.0%

**Table D.125 Route Based Journey Time Comparison North to South Movements (2030 High Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 7	Cheshunt	Bexley	61.8	51.2	72.4	61.9	50.3	73.7	0.0	-0.9	1.3	0.0%	-1.7%	1.8%
1 to 8	Cheshunt	Godstone	91.5	67.5	81.4	91.5	66.5	82.6	0.0	-1.0	1.3	0.0%	-1.5%	1.5%
1 to 9	Cheshunt	Southfleet	62.2	48.5	76.8	62.2	47.2	79.0	0.0	-1.3	2.1	0.0%	-2.7%	2.8%
1 to 10	Cheshunt	Maidstone	88.2	65.0	81.3	82.9	61.2	81.3	-5.3	-3.9	-0.1	-6.0%	-5.9%	-0.1%
1 to 11	Cheshunt	Rochester	74.5	62.2	71.9	70.3	56.8	74.2	-4.2	-5.3	2.3	-5.7%	-8.6%	3.2%
1 to 12	Cheshunt	Rainham	91.4	69.9	78.4	87.3	64.5	81.2	-4.1	-5.4	2.8	-4.5%	-7.7%	3.5%
2 to 7	Romford	Bexley	35.6	40.3	53.0	35.6	37.9	56.3	0.0	-2.4	3.3	0.0%	-5.9%	6.3%
2 to 8	Romford	Godstone	65.2	56.6	69.2	65.3	54.1	72.4	0.0	-2.5	3.2	0.0%	-4.4%	4.6%
2 to 9	Romford	Southfleet	35.9	37.6	57.2	35.9	34.8	61.8	0.0	-2.8	4.6	0.0%	-7.4%	8.0%
2 to 10	Romford	Maidstone	61.9	54.1	68.6	56.6	48.8	69.6	-5.3	-5.3	1.0	-8.6%	-9.9%	1.4%
2 to 11	Romford	Rochester	48.2	51.3	56.5	44.0	44.4	59.4	-4.2	-6.8	3.0	-8.8%	-13.3%	5.2%
2 to 12	Romford	Rainham	65.2	59.0	66.2	61.0	52.1	70.3	-4.1	-6.9	4.0	-6.3%	-11.7%	6.1%
3 to 7	Brentwood	Bexley	33.0	33.5	59.0	32.9	31.8	62.0	-0.1	-1.7	3.0	-0.3%	-5.1%	5.1%
3 to 8	Brentwood	Godstone	62.7	49.8	75.5	62.6	48.0	78.3	-0.1	-1.8	2.8	-0.1%	-3.7%	3.7%
3 to 9	Brentwood	Southfleet	33.3	30.9	64.8	33.2	28.7	69.4	-0.1	-2.1	4.6	-0.3%	-6.9%	7.2%
3 to 10	Brentwood	Maidstone	59.3	47.4	75.2	53.9	42.7	75.8	-5.4	-4.7	0.6	-9.1%	-9.9%	0.8%
3 to 11	Brentwood	Rochester	45.7	44.5	61.6	41.3	38.3	64.7	-4.3	-6.2	3.1	-9.5%	-13.9%	5.1%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
3 to 12	Brentwood	Rainham	62.6	52.3	71.9	58.4	46.0	76.1	-4.2	-6.3	4.3	-6.7%	-12.0%	6.0%
4 to 7	Basildon	Bexley	39.7	37.5	63.5	39.6	35.6	66.8	-0.1	-1.9	3.3	-0.2%	-5.1%	5.1%
4 to 8	Basildon	Godstone	69.4	53.8	77.4	69.3	51.7	80.4	-0.1	-2.0	2.9	-0.1%	-3.8%	3.8%
4 to 9	Basildon	Southfleet	40.0	34.8	69.0	33.8	28.0	72.3	-6.3	-6.8	3.3	-15.7%	-19.5%	4.8%
4 to 10	Basildon	Maidstone	66.0	51.3	77.2	48.0	40.5	71.0	-18.1	-10.8	-6.2	-27.4%	-21.0%	-8.1%
4 to 11	Basildon	Rochester	52.4	48.5	64.9	35.4	36.2	58.7	-17.0	-12.3	-6.2	-32.5%	-25.3%	-9.6%
4 to 12	Basildon	Rainham	69.3	56.2	74.0	52.4	43.9	71.7	-16.9	-12.3	-2.3	-24.4%	-21.9%	-3.1%
5 to 7	Tilbury Port	Bexley	28.3	29.7	57.1	28.3	27.4	62.1	0.0	-2.4	4.9	0.0%	-7.9%	8.6%
5 to 8	Tilbury Port	Godstone	58.0	46.0	75.7	58.0	43.5	80.0	0.0	-2.5	4.3	0.0%	-5.4%	5.7%
5 to 9	Tilbury Port	Southfleet	28.6	27.0	63.5	27.7	19.4	85.9	-0.9	-7.7	22.4	-3.2%	-28.4%	35.3%
5 to 10	Tilbury Port	Maidstone	54.6	43.5	75.3	41.9	31.9	78.9	-12.7	-11.7	3.6	-23.3%	-26.8%	4.8%
5 to 11	Tilbury Port	Rochester	41.0	40.7	60.5	29.3	27.5	64.0	-11.6	-13.1	3.5	-28.4%	-32.3%	5.8%
5 to 12	Tilbury Port	Rainham	57.9	48.4	71.7	46.4	35.2	79.0	-11.5	-13.2	7.3	-19.9%	-27.3%	10.2%
6 to 7	DP World	Bexley	32.1	33.2	58.0	32.1	31.1	61.9	0.0	-2.1	3.9	0.0%	-6.3%	6.7%
6 to 8	DP World	Godstone	61.8	49.5	74.9	61.8	47.2	78.4	0.0	-2.2	3.5	0.0%	-4.5%	4.7%
6 to 9	DP World	Southfleet	32.4	30.5	63.7	29.0	21.5	81.0	-3.4	-9.0	17.2	-10.4%	-29.5%	27.0%
6 to 10	DP World	Maidstone	58.4	47.0	74.6	43.2	34.0	76.2	-15.2	-13.0	1.6	-26.0%	-27.6%	2.2%
6 to 11	DP World	Rochester	44.8	44.2	60.9	30.7	29.7	62.0	-14.1	-14.5	1.1	-31.5%	-32.8%	1.8%
6 to 12	DP World	Rainham	61.7	51.9	71.3	47.7	37.4	76.6	-14.0	-14.5	5.3	-22.7%	-28.0%	7.4%



**Table D.126 Route Based Journey Time Comparison North to South Movements (2030 High Growth DM Vs DS) PM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
1 to 7	Cheshunt	Bexley	61.8	59.9	61.9	61.9	58.4	63.6	0.1	-1.5	1.6	0.1%	-2.5%	2.6%
1 to 8	Cheshunt	Godstone	91.6	74.2	74.1	91.6	72.4	75.9	0.0	-1.8	1.9	0.0%	-2.5%	2.5%
1 to 9	Cheshunt	Southfleet	60.8	56.8	64.2	62.2	53.2	70.2	1.4	-3.6	6.0	2.3%	-6.3%	9.3%
1 to 10	Cheshunt	Maidstone	88.2	76.5	69.2	82.9	72.5	68.6	-5.3	-4.0	-0.6	-6.0%	-5.2%	-0.9%
1 to 11	Cheshunt	Rochester	74.8	76.9	58.4	70.7	68.0	62.4	-4.1	-8.9	4.0	-5.4%	-11.5%	6.9%
1 to 12	Cheshunt	Rainham	91.5	91.8	59.8	87.3	82.5	63.6	-4.1	-9.3	3.8	-4.5%	-10.1%	6.3%
2 to 7	Romford	Bexley	36.0	52.2	41.3	35.8	46.9	45.7	-0.2	-5.3	4.4	-0.5%	-10.1%	10.7%
2 to 8	Romford	Godstone	65.4	66.5	59.0	65.5	60.9	64.5	0.1	-5.6	5.5	0.1%	-8.4%	9.3%
2 to 9	Romford	Southfleet	34.6	49.1	42.3	36.1	41.7	51.9	1.5	-7.4	9.6	4.3%	-15.1%	22.8%
2 to 10	Romford	Maidstone	62.0	68.8	54.1	56.8	61.1	55.8	-5.3	-7.8	1.7	-8.5%	-11.3%	3.2%
2 to 11	Romford	Rochester	48.7	69.2	42.2	44.6	56.6	47.4	-4.0	-12.7	5.2	-8.2%	-18.3%	12.3%
2 to 12	Romford	Rainham	65.3	84.1	46.6	61.3	71.0	51.8	-4.1	-13.1	5.2	-6.2%	-15.6%	11.1%
3 to 7	Brentwood	Bexley	33.3	40.9	48.8	32.9	37.9	52.2	-0.3	-3.1	3.4	-1.0%	-7.5%	7.0%
3 to 8	Brentwood	Godstone	62.7	55.2	68.1	62.6	51.8	72.5	-0.1	-3.4	4.4	-0.1%	-6.1%	6.4%
3 to 9	Brentwood	Southfleet	31.9	37.8	50.6	33.2	32.6	61.1	1.3	-5.2	10.5	4.2%	-13.7%	20.7%
3 to 10	Brentwood	Maidstone	59.3	57.5	61.9	53.9	52.0	62.2	-5.4	-5.6	0.4	-9.1%	-9.7%	0.6%
3 to 11	Brentwood	Rochester	45.9	57.9	47.6	41.8	47.5	52.8	-4.2	-10.4	5.2	-9.1%	-18.0%	10.9%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
3 to 12	Brentwood	Rainham	62.6	72.8	51.6	58.4	61.9	56.6	-4.2	-10.9	5.0	-6.7%	-14.9%	9.7%
4 to 7	Basildon	Bexley	37.1	45.1	49.4	36.8	42.2	52.4	-0.3	-2.9	3.0	-0.7%	-6.5%	6.2%
4 to 8	Basildon	Godstone	66.5	59.4	67.2	66.5	56.1	71.1	0.0	-3.3	3.9	0.0%	-5.5%	5.8%
4 to 9	Basildon	Southfleet	35.7	42.0	51.1	33.8	30.1	67.4	-2.0	-11.9	16.3	-5.5%	-28.4%	32.0%
4 to 10	Basildon	Maidstone	63.2	61.7	61.4	48.0	47.7	60.4	-15.2	-14.0	-1.0	-24.1%	-22.8%	-1.7%
4 to 11	Basildon	Rochester	49.8	62.1	48.1	35.8	43.2	49.8	-13.9	-18.9	1.7	-28.0%	-30.5%	3.5%
4 to 12	Basildon	Rainham	66.4	77.0	51.8	52.4	57.6	54.6	-14.0	-19.4	2.8	-21.1%	-25.2%	5.5%
5 to 7	Tilbury Port	Bexley	28.6	35.7	48.1	28.3	31.0	54.9	-0.3	-4.7	6.8	-0.9%	-13.1%	14.1%
5 to 8	Tilbury Port	Godstone	58.0	49.9	69.7	58.0	44.9	77.4	0.0	-5.0	7.8	0.0%	-10.0%	11.2%
5 to 9	Tilbury Port	Southfleet	27.2	32.5	50.2	27.7	20.4	81.4	0.5	-12.1	31.2	1.8%	-37.2%	62.2%
5 to 10	Tilbury Port	Maidstone	54.6	52.3	62.7	41.9	38.0	66.1	-12.7	-14.2	3.4	-23.3%	-27.2%	5.4%
5 to 11	Tilbury Port	Rochester	41.2	52.6	47.0	29.8	33.5	53.3	-11.5	-19.1	6.3	-27.8%	-36.3%	13.3%
5 to 12	Tilbury Port	Rainham	57.9	67.5	51.4	46.4	48.0	58.0	-11.5	-19.6	6.6	-19.9%	-29.0%	12.8%
6 to 7	DP World	Bexley	32.4	39.3	49.5	32.1	36.0	53.5	-0.3	-3.3	4.1	-0.8%	-8.4%	8.3%
6 to 8	DP World	Godstone	61.8	53.6	69.2	61.8	49.9	74.2	0.0	-3.6	5.0	0.0%	-6.8%	7.2%
6 to 9	DP World	Southfleet	31.0	36.2	51.5	29.0	23.9	73.0	-2.0	-12.3	21.5	-6.3%	-34.0%	41.9%
6 to 10	DP World	Maidstone	58.4	55.9	62.8	43.2	41.5	62.6	-15.2	-14.4	-0.2	-26.0%	-25.8%	-0.3%
6 to 11	DP World	Rochester	45.0	56.2	48.0	31.1	37.0	50.5	-13.9	-19.3	2.4	-31.0%	-34.3%	5.1%
6 to 12	DP World	Rainham	61.7	71.2	52.0	47.7	51.4	55.7	-14.0	-19.7	3.6	-22.7%	-27.7%	7.0%

**Table D.127 Route Based Journey Time Comparison South to North Movements (2030 High Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
7 to 1	Bexley	Cheshunt	61.6	58.6	63.0	61.6	55.5	66.6	0.0	-3.1	3.6	0.1%	-5.3%	5.7%
7 to 2	Bexley	Romford	34.7	46.2	45.1	34.8	39.9	52.4	0.1	-6.2	7.3	0.4%	-13.5%	16.1%
7 to 3	Bexley	Brentwood	33.1	40.8	48.8	33.2	36.2	55.0	0.0	-4.6	6.3	0.1%	-11.3%	12.9%
7 to 4	Bexley	Basildon	36.8	42.2	52.4	36.8	35.8	61.7	0.0	-6.4	9.3	-0.1%	-15.2%	17.8%
7 to 5	Bexley	Tilbury Port	28.6	39.9	42.9	28.6	32.0	53.5	0.0	-7.9	10.6	-0.1%	-19.8%	24.6%
7 to 6	Bexley	DP World	32.4	38.5	50.5	32.4	31.9	60.8	0.0	-6.6	10.3	-0.1%	-17.1%	20.5%
8 to 1	Godstone	Cheshunt	91.4	79.6	68.9	91.4	76.6	71.7	0.0	-3.1	2.8	0.0%	-3.9%	4.0%
8 to 2	Godstone	Romford	64.5	67.2	57.6	64.6	61.0	63.6	0.1	-6.2	6.0	0.2%	-9.2%	10.4%
8 to 3	Godstone	Brentwood	63.0	61.8	61.1	63.0	57.2	66.0	0.0	-4.6	4.9	0.0%	-7.4%	8.0%
8 to 4	Godstone	Basildon	66.7	63.2	63.3	66.6	56.8	70.3	0.0	-6.4	7.1	-0.1%	-10.1%	11.1%
8 to 5	Godstone	Tilbury Port	58.4	60.9	57.5	58.4	53.1	66.0	0.0	-7.8	8.5	-0.1%	-12.9%	14.7%
8 to 6	Godstone	DP World	62.2	59.5	62.7	62.2	53.0	70.4	0.0	-6.5	7.7	-0.1%	-11.0%	12.2%
9 to 1	Southfleet	Cheshunt	60.7	58.4	62.4	60.8	53.6	68.1	0.0	-4.8	5.7	0.1%	-8.3%	9.1%
9 to 2	Southfleet	Romford	33.8	45.9	44.2	34.0	38.0	53.7	0.2	-8.0	9.5	0.4%	-17.3%	21.5%
9 to 3	Southfleet	Brentwood	32.3	40.5	47.8	32.3	34.2	56.7	0.0	-6.3	8.9	0.1%	-15.6%	18.7%
9 to 4	Southfleet	Basildon	36.0	42.0	51.4	35.8	29.0	74.3	-0.1	-13.0	22.8	-0.4%	-31.0%	44.4%
9 to 5	Southfleet	Tilbury Port	27.7	39.7	41.9	31.4	28.7	65.7	3.7	-11.0	23.8	13.4%	-27.7%	56.9%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
9 to 6	Southfleet	DP World	31.5	38.3	49.4	31.4	25.1	75.0	-0.1	-13.2	25.6	-0.4%	-34.4%	51.8%
10 to 1	Maidstone	Cheshunt	88.3	80.3	66.0	83.3	70.6	70.8	-5.0	-9.7	4.9	-5.6%	-12.1%	7.4%
10 to 2	Maidstone	Romford	61.4	67.8	54.3	56.5	54.7	62.0	-4.9	-13.1	7.7	-7.9%	-19.3%	14.1%
10 to 3	Maidstone	Brentwood	59.8	62.5	57.5	54.4	51.3	63.5	-5.5	-11.1	6.1	-9.1%	-17.8%	10.5%
10 to 4	Maidstone	Basildon	63.5	63.9	59.7	50.3	43.1	70.1	-13.2	-20.8	10.4	-20.8%	-32.6%	17.5%
10 to 5	Maidstone	Tilbury Port	55.2	61.6	53.8	45.9	42.8	64.3	-9.4	-18.8	10.5	-16.9%	-30.5%	19.6%
10 to 6	Maidstone	DP World	59.1	60.2	58.9	45.9	39.2	70.2	-13.2	-21.0	11.3	-22.3%	-34.8%	19.2%
11 to 1	Rochester	Cheshunt	76.2	83.5	54.8	70.3	66.5	63.4	-5.9	-17.0	8.7	-7.8%	-20.4%	15.8%
11 to 2	Rochester	Romford	49.3	71.0	41.7	43.5	50.7	51.5	-5.8	-20.4	9.9	-11.8%	-28.7%	23.7%
11 to 3	Rochester	Brentwood	47.8	65.7	43.7	41.3	47.3	52.5	-6.4	-18.4	8.8	-13.5%	-28.0%	20.2%
11 to 4	Rochester	Basildon	51.5	67.1	46.0	37.3	39.0	57.4	-14.2	-28.1	11.4	-27.5%	-41.9%	24.7%
11 to 5	Rochester	Tilbury Port	43.2	64.8	40.0	32.9	38.7	50.9	-10.3	-26.1	10.9	-23.9%	-40.3%	27.4%
11 to 6	Rochester	DP World	47.0	63.4	44.5	32.9	35.1	56.1	-14.2	-28.2	11.6	-30.1%	-44.6%	26.0%
12 to 1	Rainham	Cheshunt	91.7	97.9	56.2	87.7	80.9	65.0	-4.0	-17.1	8.9	-4.4%	-17.4%	15.8%
12 to 2	Rainham	Romford	64.8	85.5	45.5	60.9	65.0	56.2	-3.9	-20.5	10.7	-6.1%	-23.9%	23.5%
12 to 3	Rainham	Brentwood	63.3	80.1	47.4	58.7	61.6	57.2	-4.5	-18.5	9.8	-7.2%	-23.0%	20.6%
12 to 4	Rainham	Basildon	67.0	81.5	49.3	54.7	53.4	61.5	-12.3	-28.2	12.2	-18.3%	-34.5%	24.8%
12 to 5	Rainham	Tilbury Port	58.7	79.2	44.4	50.2	53.1	56.8	-8.4	-26.1	12.4	-14.4%	-33.0%	27.8%
12 to 6	Rainham	DP World	62.5	77.8	48.2	50.2	49.5	60.9	-12.3	-28.3	12.7	-19.6%	-36.4%	26.3%

**Table D.128 Route Based Journey Time Comparison South to North Movements (2030 High Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
7 to 1	Bexley	Cheshunt	61.6	53.5	69.1	61.6	49.9	74.1	0.0	-3.6	5.0	0.1%	-6.7%	7.3%
7 to 2	Bexley	Romford	35.3	40.1	52.8	34.8	35.2	59.3	-0.5	-4.9	6.5	-1.4%	-12.2%	12.3%
7 to 3	Bexley	Brentwood	33.1	38.0	52.3	33.2	32.8	60.7	0.0	-5.2	8.4	0.1%	-13.7%	16.0%
7 to 4	Bexley	Basildon	36.8	41.2	53.6	36.8	35.2	62.7	0.0	-6.0	9.1	-0.1%	-14.6%	17.0%
7 to 5	Bexley	Tilbury Port	31.9	37.8	50.6	31.9	31.3	61.2	0.0	-6.5	10.6	-0.1%	-17.3%	20.9%
7 to 6	Bexley	DP World	32.4	37.1	52.4	32.4	30.8	63.0	0.0	-6.3	10.6	-0.1%	-16.9%	20.3%
8 to 1	Godstone	Cheshunt	91.8	73.5	74.9	91.8	69.9	78.8	0.0	-3.6	3.9	0.1%	-4.9%	5.2%
8 to 2	Godstone	Romford	65.5	60.1	65.4	65.0	55.2	70.6	-0.5	-4.9	5.3	-0.8%	-8.2%	8.1%
8 to 3	Godstone	Brentwood	63.3	58.0	65.5	63.4	52.8	72.0	0.1	-5.2	6.5	0.1%	-9.0%	9.9%
8 to 4	Godstone	Basildon	67.0	61.2	65.7	67.0	55.2	72.8	0.0	-6.0	7.1	0.0%	-9.8%	10.9%
8 to 5	Godstone	Tilbury Port	62.1	57.8	64.4	62.1	51.3	72.7	0.0	-6.5	8.2	0.0%	-11.3%	12.8%
8 to 6	Godstone	DP World	62.6	57.1	65.8	62.6	50.8	73.9	0.0	-6.3	8.1	0.0%	-11.0%	12.3%
9 to 1	Southfleet	Cheshunt	60.2	54.2	66.7	60.8	48.3	75.5	0.5	-5.9	8.8	0.9%	-10.9%	13.3%
9 to 2	Southfleet	Romford	33.9	40.8	49.9	33.9	33.6	60.6	0.0	-7.2	10.7	0.0%	-17.7%	21.5%
9 to 3	Southfleet	Brentwood	31.8	38.7	49.3	32.3	31.2	62.2	0.6	-7.5	12.9	1.7%	-19.4%	26.2%
9 to 4	Southfleet	Basildon	35.5	41.9	50.8	35.8	28.4	75.7	0.4	-13.5	24.9	1.0%	-32.2%	49.1%
9 to 5	Southfleet	Tilbury Port	30.6	38.5	47.6	34.8	27.9	74.8	4.2	-10.6	27.2	13.8%	-27.6%	57.1%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)
9 to 6	Southfleet	DP World	31.0	37.8	49.3	31.4	24.0	78.5	0.4	-13.8	29.2	1.2%	-36.4%	59.2%
10 to 1	Maidstone	Cheshunt	88.3	69.8	75.8	83.3	61.7	81.0	-5.0	-8.1	5.2	-5.6%	-11.7%	6.8%
10 to 2	Maidstone	Romford	62.0	56.4	65.9	56.4	46.9	72.2	-5.5	-9.5	6.3	-8.9%	-16.9%	9.6%
10 to 3	Maidstone	Brentwood	59.8	54.4	66.0	54.9	44.2	74.4	-4.9	-10.1	8.4	-8.3%	-18.6%	12.7%
10 to 4	Maidstone	Basildon	63.5	57.6	66.2	50.3	39.5	76.5	-13.2	-18.1	10.3	-20.8%	-31.5%	15.6%
10 to 5	Maidstone	Tilbury Port	58.6	54.2	64.9	49.2	39.0	75.8	-9.4	-15.2	11.0	-16.0%	-28.1%	16.9%
10 to 6	Maidstone	DP World	59.1	53.5	66.3	45.9	35.1	78.5	-13.2	-18.4	12.2	-22.3%	-34.4%	18.3%
11 to 1	Rochester	Cheshunt	74.5	70.8	63.1	70.3	58.2	72.4	-4.2	-12.6	9.4	-5.6%	-17.8%	14.9%
11 to 2	Rochester	Romford	48.1	57.4	50.3	43.4	43.4	60.0	-4.7	-14.0	9.7	-9.8%	-24.4%	19.2%
11 to 3	Rochester	Brentwood	46.0	55.3	49.9	41.9	40.7	61.6	-4.2	-14.6	11.7	-9.0%	-26.4%	23.6%
11 to 4	Rochester	Basildon	49.7	58.6	50.9	37.3	36.0	62.2	-12.4	-22.6	11.3	-25.0%	-38.6%	22.2%
11 to 5	Rochester	Tilbury Port	44.8	55.2	48.7	36.2	35.5	61.3	-8.6	-19.7	12.6	-19.1%	-35.7%	25.8%
11 to 6	Rochester	DP World	45.3	54.4	49.9	32.9	31.6	62.4	-12.4	-22.9	12.5	-27.4%	-42.0%	25.1%
12 to 1	Rainham	Cheshunt	91.7	78.1	70.4	87.7	65.3	80.5	-4.0	-12.8	10.1	-4.4%	-16.4%	14.3%
12 to 2	Rainham	Romford	65.4	64.7	60.6	60.8	50.6	72.1	-4.6	-14.2	11.5	-7.0%	-21.9%	19.0%
12 to 3	Rainham	Brentwood	63.3	62.6	60.6	59.2	47.9	74.2	-4.0	-14.8	13.6	-6.4%	-23.6%	22.5%
12 to 4	Rainham	Basildon	67.0	65.9	61.0	54.7	43.1	76.1	-12.3	-22.8	15.1	-18.3%	-34.6%	24.8%
12 to 5	Rainham	Tilbury Port	62.0	62.5	59.6	53.6	42.6	75.5	-8.4	-19.9	15.9	-13.6%	-31.8%	26.7%
12 to 6	Rainham	DP World	62.5	61.7	60.8	50.2	38.7	77.9	-12.3	-23.0	17.1	-19.6%	-37.3%	28.1%

**Table D.129 Route Based Journey Time Comparison South to North Movements (2030 High Growth DM Vs DS) PM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
7 to 1	Bexley	Cheshunt	61.6	60.3	61.2	61.6	56.7	65.3	0.0	-3.7	4.0	0.1%	-6.1%	6.6%
7 to 2	Bexley	Romford	34.8	45.9	45.4	34.8	41.2	50.7	0.0	-4.7	5.2	0.0%	-10.3%	11.5%
7 to 3	Bexley	Brentwood	33.1	40.0	49.7	33.2	35.5	56.0	0.0	-4.5	6.4	0.1%	-11.2%	12.8%
7 to 4	Bexley	Basildon	36.8	48.5	45.6	36.8	41.9	52.8	0.0	-6.6	7.2	0.0%	-13.6%	15.7%
7 to 5	Bexley	Tilbury Port	28.6	38.2	44.9	28.6	30.7	55.8	0.0	-7.5	10.9	0.0%	-19.6%	24.4%
7 to 6	Bexley	DP World	32.4	42.3	46.0	32.4	35.8	54.3	0.0	-6.5	8.3	0.0%	-15.3%	18.1%
8 to 1	Godstone	Cheshunt	91.2	82.0	66.7	91.3	79.1	69.2	0.0	-2.9	2.5	0.1%	-3.5%	3.7%
8 to 2	Godstone	Romford	64.4	67.6	57.2	64.4	63.6	60.7	0.0	-4.0	3.6	0.0%	-5.9%	6.2%
8 to 3	Godstone	Brentwood	62.8	61.7	61.1	62.8	58.0	65.0	0.0	-3.7	3.9	0.1%	-6.0%	6.5%
8 to 4	Godstone	Basildon	66.5	70.2	56.9	66.5	64.3	62.0	0.0	-5.8	5.1	0.0%	-8.3%	9.0%
8 to 5	Godstone	Tilbury Port	58.2	59.8	58.4	58.2	53.2	65.7	0.0	-6.7	7.3	0.0%	-11.2%	12.6%
8 to 6	Godstone	DP World	62.0	63.9	58.2	62.0	58.2	63.9	0.0	-5.7	5.7	0.0%	-8.9%	9.8%
9 to 1	Southfleet	Cheshunt	60.7	57.8	63.0	60.8	53.6	68.0	0.0	-4.2	5.0	0.1%	-7.3%	8.0%
9 to 2	Southfleet	Romford	33.9	43.4	46.9	33.9	38.1	53.4	0.0	-5.3	6.5	0.0%	-12.2%	13.9%
9 to 3	Southfleet	Brentwood	32.3	37.5	51.6	32.3	32.5	59.7	0.0	-5.0	8.1	0.1%	-13.4%	15.7%
9 to 4	Southfleet	Basildon	36.0	46.0	47.0	36.4	33.0	66.3	0.4	-13.0	19.3	1.1%	-28.3%	41.1%
9 to 5	Southfleet	Tilbury Port	27.7	35.6	46.6	31.9	25.6	74.7	4.2	-10.0	28.1	15.3%	-28.0%	60.3%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
9 to 6	Southfleet	DP World	31.5	39.7	47.6	31.9	26.8	71.4	0.4	-12.9	23.8	1.3%	-32.4%	49.9%
10 to 1	Maidstone	Cheshunt	88.3	76.6	69.1	83.3	71.2	70.2	-5.0	-5.4	1.1	-5.6%	-7.1%	1.6%
10 to 2	Maidstone	Romford	61.4	62.2	59.3	56.4	55.7	60.8	-5.0	-6.5	1.5	-8.1%	-10.5%	2.6%
10 to 3	Maidstone	Brentwood	59.8	56.3	63.8	54.9	50.1	65.7	-5.0	-6.2	2.0	-8.3%	-11.0%	3.1%
10 to 4	Maidstone	Basildon	63.5	64.7	58.9	50.3	47.3	63.9	-13.2	-17.5	5.0	-20.8%	-27.0%	8.5%
10 to 5	Maidstone	Tilbury Port	55.2	54.4	60.9	45.9	40.0	68.9	-9.4	-14.5	8.0	-16.9%	-26.6%	13.1%
10 to 6	Maidstone	DP World	59.1	58.5	60.6	45.9	41.2	66.9	-13.2	-17.4	6.3	-22.3%	-29.7%	10.4%
11 to 1	Rochester	Cheshunt	74.5	82.4	54.2	70.3	69.3	60.8	-4.2	-13.1	6.6	-5.6%	-15.8%	12.2%
11 to 2	Rochester	Romford	47.7	68.0	42.1	43.4	53.8	48.4	-4.2	-14.2	6.4	-8.9%	-20.8%	15.1%
11 to 3	Rochester	Brentwood	46.0	62.1	44.5	41.9	48.2	52.1	-4.2	-13.9	7.6	-9.1%	-22.3%	17.1%
11 to 4	Rochester	Basildon	49.7	70.5	42.3	37.3	45.4	49.3	-12.4	-25.1	7.0	-25.0%	-35.6%	16.6%
11 to 5	Rochester	Tilbury Port	41.4	60.2	41.3	32.9	38.1	51.8	-8.6	-22.1	10.5	-20.7%	-36.7%	25.4%
11 to 6	Rochester	DP World	45.3	64.3	42.2	32.9	39.3	50.2	-12.4	-25.0	7.9	-27.4%	-38.9%	18.8%
12 to 1	Rainham	Cheshunt	91.7	88.2	62.4	87.7	74.2	70.9	-4.0	-14.0	8.5	-4.4%	-15.9%	13.6%
12 to 2	Rainham	Romford	64.9	73.8	52.8	60.8	58.7	62.1	-4.1	-15.1	9.4	-6.3%	-20.4%	17.8%
12 to 3	Rainham	Brentwood	63.3	67.9	55.9	59.2	53.1	66.9	-4.0	-14.8	11.0	-6.4%	-21.8%	19.7%
12 to 4	Rainham	Basildon	67.0	76.3	52.6	54.7	50.3	65.2	-12.3	-26.0	12.6	-18.3%	-34.1%	24.0%
12 to 5	Rainham	Tilbury Port	58.7	66.0	53.3	50.2	43.0	70.1	-8.4	-23.0	16.8	-14.4%	-34.9%	31.5%
12 to 6	Rainham	DP World	62.5	70.1	53.5	50.2	44.2	68.2	-12.3	-25.9	14.7	-19.6%	-37.0%	27.5%



## **D.7 LTAM 2037 High Growth – Outputs to Economic Assessment**

D.7.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2037 high growth forecast.

### **Matrix Total Comparison**

D.7.2 Table D.130 and Table D.131 show that the VDMs have converged to the desired criteria.

D.7.3 Table D.132 and Table D.133 provide a comparison of the input reference matrices with the VDM output matrices. The SATURN format comparisons are provided for all movements and relevant movements.

**Table D.130 Convergence and Stability Statistics (High 2037 DM)**

Iteration	% GAP		Cost stability				Flow stability				Totals
	Full Model	Subset Area	RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%	Trips*
1	10.61%	17.55%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%	91,086,769
2	5.02%	7.01%	0.016	0.862	1.608	90.94%	0.118	0.030	3.981	32.12%	91,472,723
3	2.46%	3.31%	0.003	0.149	0.292	99.97%	0.046	0.014	1.988	64.54%	91,668,514
4	1.22%	1.61%	0.001	0.033	0.071	99.99%	0.022	0.007	0.994	91.28%	91,766,615
5	0.61%	0.80%	0.000	0.018	0.058	99.99%	0.011	0.003	0.498	98.68%	91,815,635
6	0.31%	0.41%	0.000	0.012	0.038	100.00%	0.005	0.002	0.248	99.68%	91,840,178
7	0.16%	0.23%	0.000	0.012	0.033	100.00%	0.003	0.001	0.127	99.92%	91,852,378
8	0.08%	0.14%	0.000	0.013	0.053	99.99%	0.001	0.000	0.062	99.99%	91,858,498
9	0.04%	0.10%	0.000	0.014	0.053	99.99%	0.001	0.000	0.031	99.98%	91,861,557

*\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report*

**Table D.131 Convergence and Stability Statistics (High 2037 DS)**

Iteration	% GAP		Cost stability				Flow stability				Totals
	Full Model	Subset Area	RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%	Trips*
1	10.61%	17.54%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%	91,086,769
2	5.03%	7.20%	0.009	0.488	0.978	97.12%	0.132	0.030	3.981	34.15%	91,474,399
3	2.47%	3.40%	0.002	0.095	0.175	99.98%	0.049	0.014	1.989	63.93%	91,670,381
4	1.22%	1.66%	0.001	0.032	0.072	99.99%	0.023	0.007	0.994	89.54%	91,768,577
5	0.61%	0.82%	0.000	0.016	0.054	99.99%	0.011	0.004	0.497	98.71%	91,817,638
6	0.31%	0.43%	0.000	0.013	0.044	100.00%	0.006	0.002	0.249	99.70%	91,842,156
7	0.16%	0.25%	0.000	0.015	0.065	99.99%	0.003	0.001	0.126	99.92%	91,854,390
8	0.08%	0.16%	0.000	0.015	0.064	99.99%	0.002	0.000	0.063	99.97%	91,860,535
9	0.04%	0.10%	0.000	0.010	0.044	99.99%	0.001	0.000	0.034	99.98%	91,863,558

*\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report*

**Table D.132 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices  
(High 2037 Reference DM and DS Highway Trips in PCUs)**

Segment	Matrix Type	Time Period	Reference Matrix (High 2037)	VDM Output Matrix (High 2037 DM)			VDM Output Matrix (High 2037 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
HBEB	24Hr PA	N/A	3,274,280	3,275,839	1,559	0.0%	3,275,891	1,611	0.0%
HBW L	24Hr PA	N/A	2,841,311	2,842,544	1,234	0.0%	2,842,571	1,260	0.0%
HBW M	24Hr PA	N/A	5,020,367	5,018,510	-1,857	0.0%	5,018,609	-1,759	0.0%
HBW H	24Hr PA	N/A	3,927,826	3,919,423	-8,403	-0.2%	3,919,559	-8,267	-0.2%
HBO L	24Hr PA	N/A	8,216,318	8,396,028	179,710	2.2%	8,396,301	179,983	2.2%
HBO M	24Hr PA	N/A	7,375,798	7,458,445	82,647	1.1%	7,458,692	82,893	1.1%
HBO H	24Hr PA	N/A	5,309,931	5,336,988	27,057	0.5%	5,337,223	27,292	0.5%
NHBE B	By Time Period OD	AM	110,798	110,388	-411	-0.4%	110,443	-355	-0.3%
		IP	143,502	143,292	-210	-0.1%	143,299	-202	-0.1%
		PM	159,991	157,832	-2,159	-1.3%	157,849	-2,143	-1.3%
		OP	40,415	40,934	519	1.3%	40,920	505	1.2%
NHBO L	By Time Period OD	AM	162,028	165,411	3,383	2.1%	165,497	3,469	2.1%
		IP	430,012	438,786	8,774	2.0%	438,786	8,774	2.0%
		PM	339,661	343,491	3,830	1.1%	343,565	3,905	1.1%
		OP	94,666	97,924	3,257	3.4%	97,903	3,236	3.4%

Segment	Matrix Type	Time Period	Reference Matrix (High 2037)	VDM Output Matrix (High 2037 DM)			VDM Output Matrix (High 2037 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
NHBO M	By Time Period OD	AM	172,380	173,526	1,146	0.7%	173,598	1,218	0.7%
		IP	343,915	347,827	3,912	1.1%	347,868	3,953	1.1%
		PM	341,499	341,676	177	0.1%	341,718	218	0.1%
		OP	84,672	86,666	1,993	2.4%	86,636	1,964	2.3%
NHBO H	By Time Period OD	AM	138,897	138,620	-276	-0.2%	138,661	-236	-0.2%
		IP	235,497	236,738	1,241	0.5%	236,758	1,262	0.5%
		PM	264,670	262,640	-2,030	-0.8%	262,748	-1,923	-0.7%
		OP	62,194	63,483	1,288	2.1%	63,453	1,259	2.0%
LGV	By Time Period OD	AM	1,047,461	1,047,461	0	0.0%	1,047,461	0	0.0%
		IP	904,548	904,548	0	0.0%	904,548	0	0.0%
		PM	756,007	756,007	0	0.0%	756,007	0	0.0%
		OP	364,666	364,666	0	0.0%	364,666	0	0.0%
HGV	By Time Period OD	AM	152,589	152,589	0	0.0%	152,589	0	0.0%
		IP	171,399	171,399	0	0.0%	171,399	0	0.0%
		PM	98,873	98,873	0	0.0%	98,873	0	0.0%
		OP	68,015	68,015	0	0.0%	68,015	0	0.0%

Segment	Matrix Type	Time Period	Reference Matrix (High 2037)	VDM Output Matrix (High 2037 DM)			VDM Output Matrix (High 2037 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Port Trips EB	By Time Period OD	AM	5,465	5,465	0	0.0%	5,465	0	0.0%
		IP	3,810	3,810	0	0.0%	3,810	0	0.0%
		PM	4,772	4,772	0	0.0%	4,772	0	0.0%
		OP	1,478	1,478	0	0.0%	1,478	0	0.0%
Port Trips O LI	By Time Period OD	AM	3,183	3,183	0	0.0%	3,183	0	0.0%
		IP	3,915	3,915	0	0.0%	3,915	0	0.0%
		PM	3,892	3,892	0	0.0%	3,892	0	0.0%
		OP	1,272	1,272	0	0.0%	1,272	0	0.0%
Port Trips O MI	By Time Period OD	AM	3,712	3,712	0	0.0%	3,712	0	0.0%
		IP	4,134	4,134	0	0.0%	4,134	0	0.0%
		PM	4,565	4,565	0	0.0%	4,565	0	0.0%
		OP	1,410	1,410	0	0.0%	1,410	0	0.0%
Port Trips O HI	By Time Period OD	AM	5,266	5,266	0	0.0%	5,266	0	0.0%
		IP	4,398	4,398	0	0.0%	4,398	0	0.0%
		PM	5,830	5,830	0	0.0%	5,830	0	0.0%
		OP	1,687	1,687	0	0.0%	1,687	0	0.0%

**Table D.133 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices  
(High 2037 Reference DM and DS Hourly PCUs)**

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (High 2037)	VDM Output Matrix (High 2037 DM)			VDM Output Matrix (High 2037 DS)			Reference Matrix (High 2037)	VDM Output Matrix (High 2037 DM)			VDM Output Matrix (High 2037 DS)		
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Employers Business	AM	569,529	569,230	-299	-0.1%	569,337	-192	0.0%	47,698	46,790	-908	-1.9%	46,910	-788	-1.7%
	IP	496,524	496,268	-257	-0.1%	496,277	-247	0.0%	33,040	32,851	-189	-0.6%	32,870	-170	-0.5%
	PM	684,458	680,435	-4,023	-0.6%	680,503	-3,955	-0.6%	48,285	46,653	-1,632	-3.4%	46,735	-1,550	-3.2%
	OP	195,814	196,818	1,004	0.5%	196,793	979	0.5%	13,210	14,050	839	6.4%	14,032	822	6.2%
Car Commute Low Income	AM	525,604	522,161	-3,442	-0.7%	522,132	-3,471	-0.7%	38,701	38,728	27	0.1%	38,692	-8	0.0%
	IP	239,455	240,635	1,180	0.5%	240,656	1,201	0.5%	21,855	22,140	285	1.3%	22,161	306	1.4%
	PM	601,618	600,225	-1,393	-0.2%	600,246	-1,372	-0.2%	40,615	40,560	-55	-0.1%	40,579	-36	-0.1%
	OP	95,850	96,496	646	0.7%	96,496	646	0.7%	8,112	8,392	280	3.5%	8,392	280	3.5%
Car Commute Medium Income	AM	1,060,021	1,055,488	-4,534	-0.4%	1,055,593	-4,428	-0.4%	81,705	80,961	-744	-0.9%	81,063	-642	-0.8%
	IP	367,469	368,363	895	0.2%	368,359	890	0.2%	33,506	33,608	102	0.3%	33,605	100	0.3%
	PM	1,152,323	1,150,207	-2,116	-0.2%	1,150,273	-2,050	-0.2%	80,673	79,665	-1,008	-1.2%	79,729	-944	-1.2%
	OP	146,999	147,646	647	0.4%	147,632	633	0.4%	12,428	12,746	318	2.6%	12,733	304	2.4%

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (High 2037)	VDM Output Matrix (High 2037 DM)			VDM Output Matrix (High 2037 DS)			Reference Matrix (High 2037)	VDM Output Matrix (High 2037 DM)			VDM Output Matrix (High 2037 DS)		
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Commute High Income	AM	900,713	897,404	-3,309	-0.4%	897,341	-3,372	-0.4%	78,306	76,853	-1,453	-1.9%	76,788	-1,518	-1.9%
	IP	261,872	261,578	-294	-0.1%	261,587	-284	-0.1%	28,570	28,368	-203	-0.7%	28,380	-190	-0.7%
	PM	932,559	929,313	-3,245	-0.3%	929,528	-3,030	-0.3%	79,194	77,135	-2,060	-2.6%	77,350	-1,845	-2.3%
	OP	104,684	104,828	144	0.1%	104,820	136	0.1%	10,732	10,893	161	1.5%	10,886	154	1.4%
Car Other Low Income	AM	874,265	893,210	18,945	2.2%	893,427	19,162	2.2%	93,037	92,850	-188	-0.2%	93,116	78	0.1%
	IP	1,550,053	1,581,090	31,036	2.0%	1,581,068	31,015	2.0%	129,264	131,610	2,346	1.8%	131,646	2,382	1.8%
	PM	1,516,583	1,540,925	24,341	1.6%	1,541,164	24,581	1.6%	138,666	136,156	-2,510	-1.8%	136,453	-2,213	-1.6%
	OP	484,742	498,485	13,743	2.8%	498,423	13,681	2.8%	41,480	45,087	3,606	8.7%	45,047	3,567	8.6%
Car Other Medium Income	AM	933,529	941,266	7,737	0.8%	941,408	7,879	0.8%	102,962	100,413	-2,549	-2.5%	100,603	-2,359	-2.3%
	IP	1,240,371	1,253,560	13,190	1.1%	1,253,650	13,279	1.1%	120,218	120,431	213	0.2%	120,579	360	0.3%
	PM	1,528,925	1,536,673	7,748	0.5%	1,536,820	7,896	0.5%	154,499	149,240	-5,259	-3.4%	149,451	-5,048	-3.3%
	OP	433,986	441,757	7,771	1.8%	441,686	7,701	1.8%	41,928	44,595	2,667	6.4%	44,550	2,622	6.3%
Car Other High Income	AM	749,764	750,124	360	0.0%	750,206	442	0.1%	97,885	93,974	-3,911	-4.0%	94,113	-3,772	-3.9%
	IP	837,049	840,988	3,939	0.5%	841,011	3,962	0.5%	98,342	97,302	-1,041	-1.1%	97,373	-969	-1.0%
	PM	1,164,960	1,162,423	-2,537	-0.2%	1,162,770	-2,190	-0.2%	138,827	132,281	-6,546	-4.7%	132,700	-6,127	-4.4%
	OP	314,105	318,405	4,301	1.4%	318,332	4,227	1.3%	36,689	38,645	1,957	5.3%	38,599	1,910	5.2%



Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (High 2037)	VDM Output Matrix (High 2037 DM)			VDM Output Matrix (High 2037 DS)			Reference Matrix (High 2037)	VDM Output Matrix (High 2037 DM)			VDM Output Matrix (High 2037 DS)		
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Total	AM	5,613,426	5,628,882	15,457	0.3%	5,629,445	16,019	0.3%	540,294	530,569	-9,726	-1.8%	531,285	-9,009	-1.7%
	IP	4,992,792	5,042,482	49,690	1.0%	5,042,607	49,816	1.0%	464,796	466,310	1,514	0.3%	466,614	1,818	0.4%
	PM	7,581,425	7,600,200	18,775	0.2%	7,601,304	19,879	0.3%	680,759	661,690	-19,069	-2.8%	662,997	-17,762	-2.6%
	OP	1,776,180	1,804,435	28,254	1.6%	1,804,183	28,003	1.6%	164,579	174,408	9,829	6.0%	174,239	9,660	5.9%
LGV	AM	1,047,461	1,047,461	0	0.0%	1,047,461	0	0.0%	130,312	130,312	0	0.0%	130,312	0	0.0%
	IP	904,548	904,548	0	0.0%	904,548	0	0.0%	98,418	98,418	0	0.0%	98,418	0	0.0%
	PM	756,007	756,007	0	0.0%	756,007	0	0.0%	100,457	100,457	0	0.0%	100,457	0	0.0%
	OP	364,666	364,666	0	0.0%	364,666	0	0.0%	39,090	39,090	0	0.0%	39,090	0	0.0%
HGV	AM	152,589	152,589	0	0.0%	152,589	0	0.0%	62,422	62,422	0	0.0%	62,422	0	0.0%
	IP	171,399	171,399	0	0.0%	171,399	0	0.0%	68,642	68,642	0	0.0%	68,642	0	0.0%
	PM	98,873	98,873	0	0.0%	98,873	0	0.0%	39,362	39,362	0	0.0%	39,362	0	0.0%
	OP	68,015	68,015	0	0.0%	68,015	0	0.0%	26,920	26,920	0	0.0%	26,920	0	0.0%

## Highway Assignment Model (HAM) Convergence Statistics

D.7.4 Table D.134 to Table D.136 provide the highway assignment model convergence statistics for the 2037 high growth DM forecasts. Table D.137 to Table D.139 provide the highway assignment model convergence statistics for the 2037 high growth DS forecasts.

**Table D.134 HAM Convergence Statistics – 2037 High Growth DM AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
73	0.0042	0.0059	98.7	99.3
74	0.0041	0.0067	99.1	99.4
75	0.0051	0.0067	98.5	99.3
76	0.0039	0.0053	98.9	99.5

**Table D.135 HAM Convergence Statistics – 2037 High Growth DM Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
94	0.0032	0.0040	98.5	99.4
95	0.0029	0.0039	98.7	99.4
96	0.0026	0.0034	98.6	99.5
97	0.0032	0.0056	99.0	99.5

**Table D.136 HAM Convergence Statistics – 2037 High Growth DM PM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
71	0.0044	0.0064	98.5	99.0
72	0.0050	0.0080	98.7	99.1
73	0.0050	0.0059	98.6	99.0
74	0.0038	0.0074	98.7	99.0

**Table D.137 HAM Convergence Statistics – 2037 High Growth DS AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
69	0.0051	0.0064	98.8	99.3
70	0.0062	0.0061	98.6	99.3
71	0.0056	0.0049	98.7	99.4
72	0.0040	0.0071	98.9	99.4

**Table D.138 HAM Convergence Statistics – 2037 High Growth DS Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
100	0.0022	0.0039	98.6	99.4
101	0.0023	0.0033	98.8	99.5
102	0.0022	0.0029	98.9	99.6
103	0.0018	0.0055	99.0	99.6

**Table D.139 HAM Convergence Statistics – 2037 High Growth DS PM Peak**

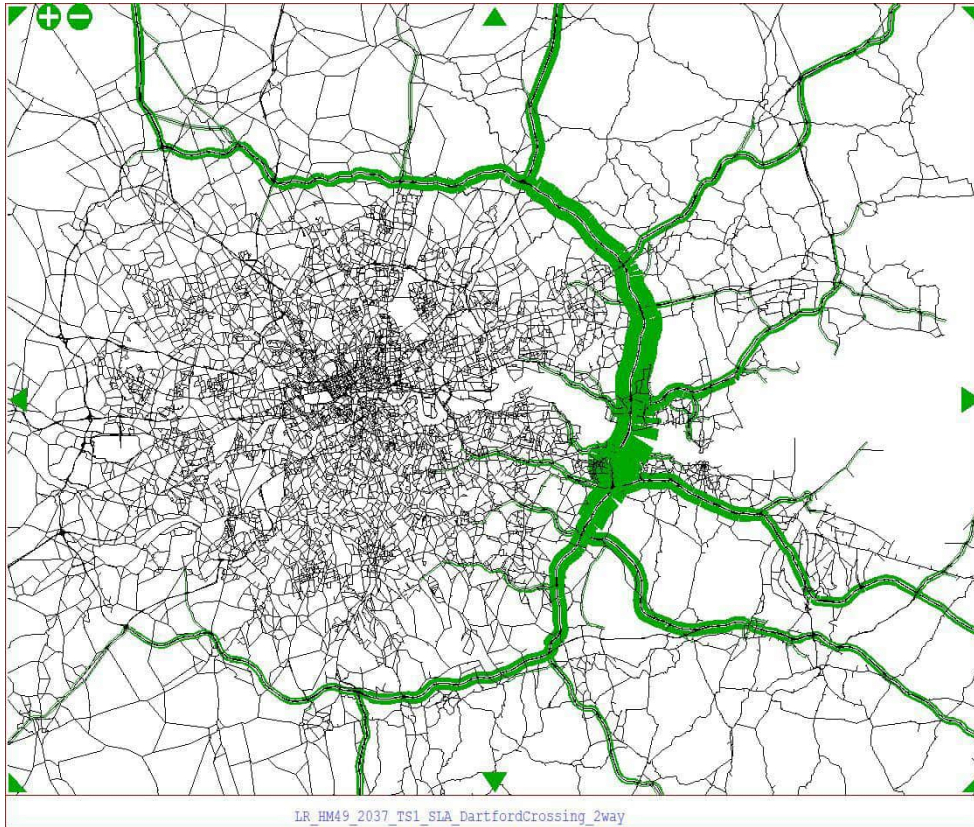
Iteration	Delta (%)	%GAP	%Flows	%Delays
61	0.0045	0.0075	98.6	99.0
62	0.0042	0.0071	98.6	99.0
63	0.0042	0.0071	98.6	99.0
64	0.0043	0.0066	98.6	99.1

D.7.5 These tables demonstrate that the LTAM has achieved the TAG convergence targets in all time periods for this scenario and year.

### Movement Patterns Using the Crossings

D.7.6 Plate D.61 to Plate D.69 provide select link analysis of movements using the Dartford and Lower Thames Crossing for the Do Minimum and Do Something scenarios for each of the model time periods. These diagrams show the pattern of movements using each of the crossings in each of the time periods. Table D.140 to Table D.142 provide a summary of the main corridors using each of the crossings and a comparison between the DM and DS scenarios for each time period.

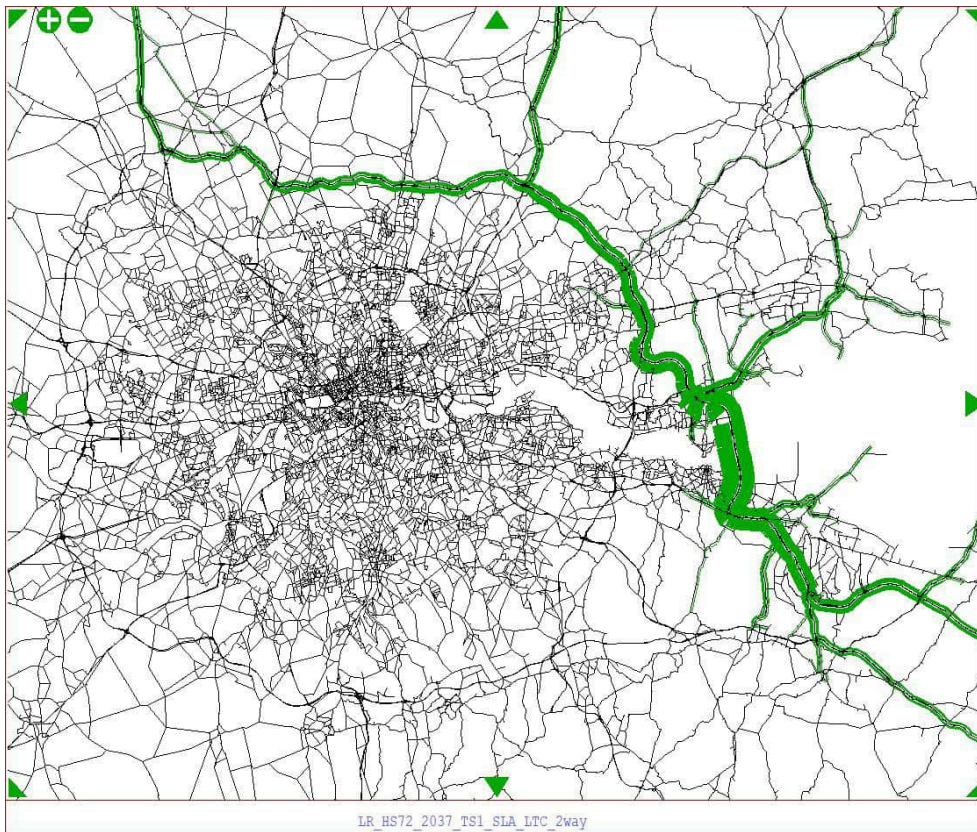
### Plate D.61 Select Link Analysis – Dartford Crossing DM 2037 High AM Peak



### Plate D.62 Select Link Analysis – Dartford Crossing DS 2037 High AM Peak



**Plate D.63 Select Link Analysis – Lower Thames Crossing DS 2037 High AM Peak**



**Table D.140 Select Link Analysis – Summary of Primary Corridors of Movement  
 2037 High AM Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,581	17%	3,621	25%	1040	40%
	Local (Outside M25)	2,051	13%	2,018	14%	-33	-2%
	M25 South (J2-3)	7,523	49%	7,781	53%	258	3%
	A2/M2 to/from Kent	3,326	21%	1,314	9%	-2012	-60%
Select Link	Dartford Crossing	<b>15,481</b>	<b>100%</b>	<b>14,734</b>	<b>100%</b>	<b>-747</b>	<b>-5%</b>
North of River	London North	2,201	14%	2,932	20%	732	33%
	Local Traffic	1,543	10%	1,699	12%	157	10%
	M25 North (J30-29)	8,765	57%	7,613	52%	-1152	-13%
	A13 to/from Essex	2,973	19%	2,490	17%	-484	-16%
South of River	Local Traffic	n/a	n/a	855	10%	n/a	n/a
	A2 West of LTC	n/a	n/a	584	7%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	7,308	84%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>8,748</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	813	9%	n/a	n/a
	A13 West of LTC	n/a	n/a	86	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	3,461	40%	n/a	n/a
	M25 North of LTC	n/a	n/a	4,388	50%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

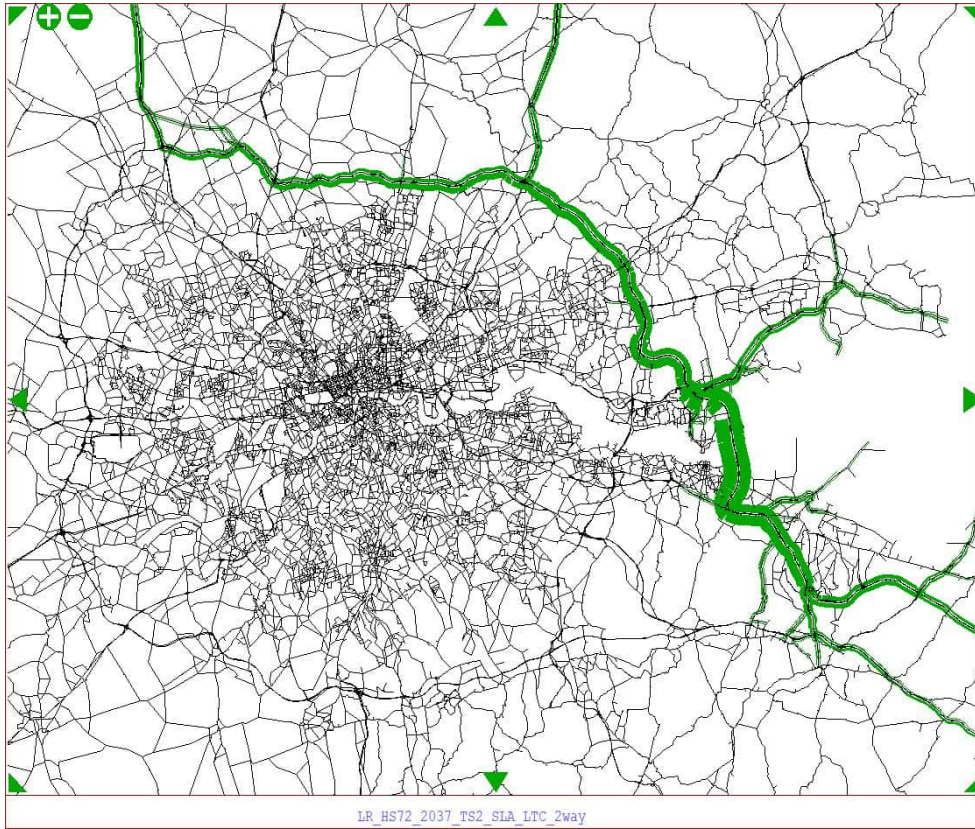
### Plate D.64 Select Link Analysis – Dartford Crossing DM 2037 High Inter Peak



### Plate D.65 Select Link Analysis – Dartford Crossing DS 2037 High Inter Peak



### Plate D.66 Select Link Analysis – Lower Thames Crossing DS 2037 High Inter Peak



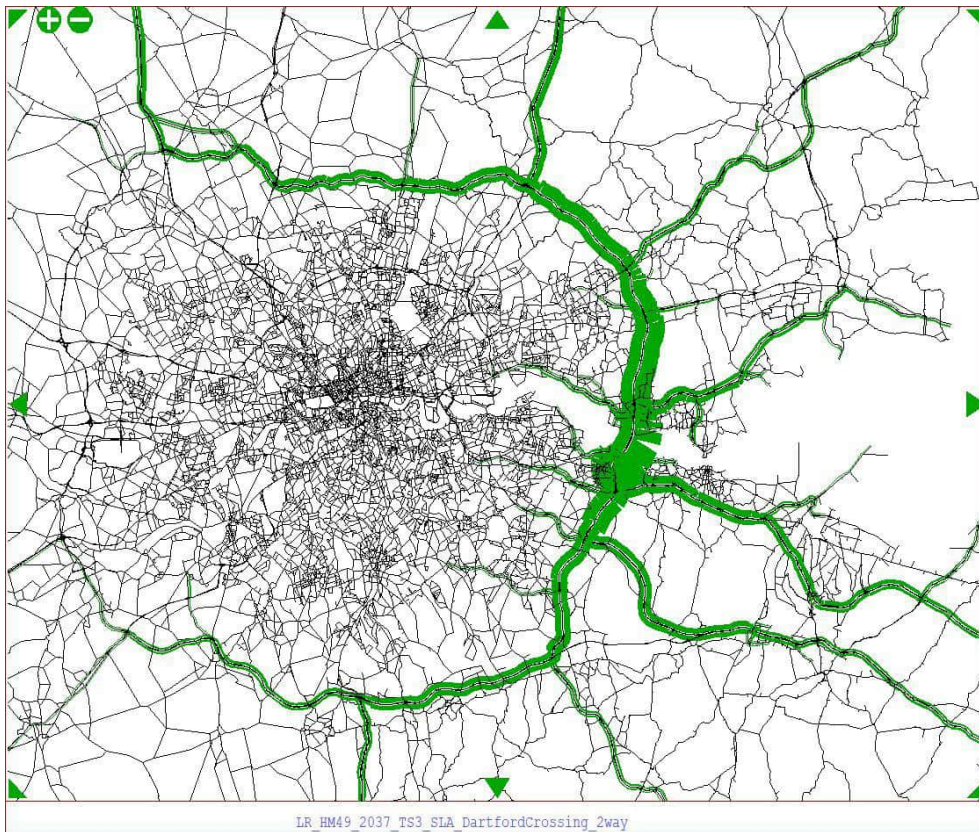


**Table D.141 Select Link Analysis – Summary of Primary Corridors of Movement  
 2037 High Inter Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,308	16%	2,858	23%	550	24%
	Local (Outside M25)	1,557	11%	1,437	11%	-120	-8%
	M25 South (J2-3)	7,113	48%	7,019	56%	-93	-1%
	A2/M2 to/from Kent	3,758	26%	1,288	10%	-2470	-66%
Select Link	Dartford Crossing	<b>14,736</b>	<b>100%</b>	<b>12,603</b>	<b>100%</b>	<b>-2134</b>	<b>-14%</b>
North of River	London North	1,807	12%	2,336	19%	529	29%
	Local Traffic	1,604	11%	1,682	13%	79	5%
	M25 North (J30-29)	8,155	55%	6,064	48%	-2091	-26%
	A13 to/from Essex	3,171	22%	2,521	20%	-650	-21%
South of River	Local Traffic	n/a	n/a	828	11%	n/a	n/a
	A2 West of LTC	n/a	n/a	452	6%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	6,183	83%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>7,462</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	661	9%	n/a	n/a
	A13 West of LTC	n/a	n/a	51	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	2,922	39%	n/a	n/a
	M25 North of LTC	n/a	n/a	3,828	51%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

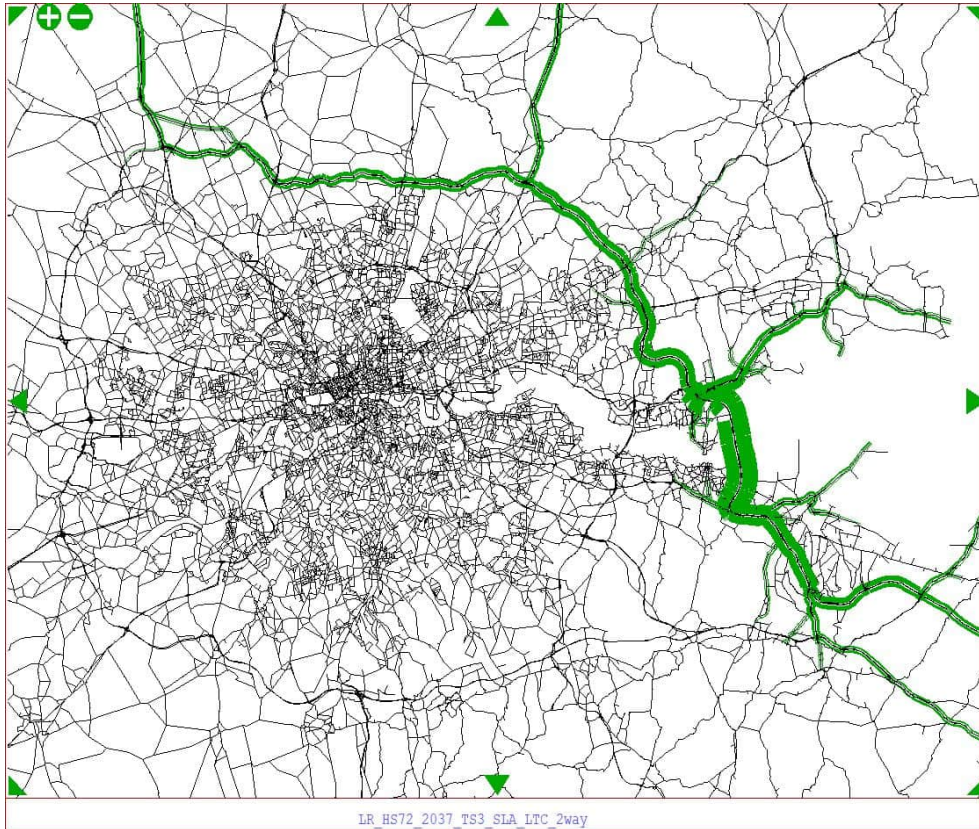
### Plate D.67 Select Link Analysis – Dartford Crossing DM 2037 High PM Peak



### Plate D.68 Select Link Analysis – Dartford Crossing DS 2037 High PM Peak



### Plate D.69 Select Link Analysis – Lower Thames Crossing DS 2037 High PM Peak



**Table D.142 Select Link Analysis – Summary of Primary Corridors of Movement  
 2037 High PM Peak Two-Way Flow**

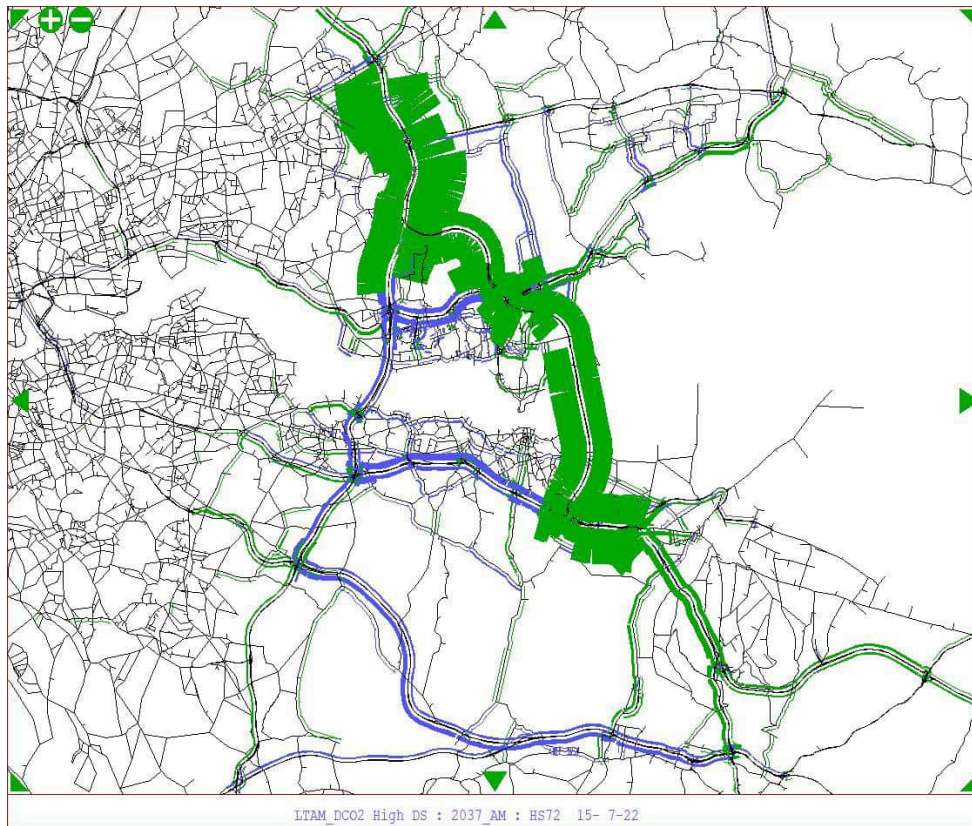
Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,503	16%	3,108	23%	605	24%
	Local (Outside M25)	1,660	11%	1,622	12%	-38	-2%
	M25 South (J2-3)	7,144	47%	7,000	52%	-144	-2%
	A2/M2 to/from Kent	3,890	26%	1,634	12%	-2256	-58%
Select Link	Dartford Crossing	<b>15,196</b>	<b>100%</b>	<b>13,363</b>	<b>100%</b>	<b>-1833</b>	<b>-12%</b>
North of River	London North	2,369	16%	3,086	23%	717	30%
	Local Traffic	1,511	10%	1,677	13%	166	11%
	M25 North (J30-29)	8,078	53%	6,231	47%	-1848	-23%
	A13 to/from Essex	3,237	21%	2,369	18%	-868	-27%
South of River	Local Traffic	n/a	n/a	1,237	14%	n/a	n/a
	A2 West of LTC	n/a	n/a	707	8%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	6,651	77%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>8,595</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	885	10%	n/a	n/a
	A13 West of LTC	n/a	n/a	52	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	3,957	46%	n/a	n/a
	M25 North of LTC	n/a	n/a	3,700	43%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

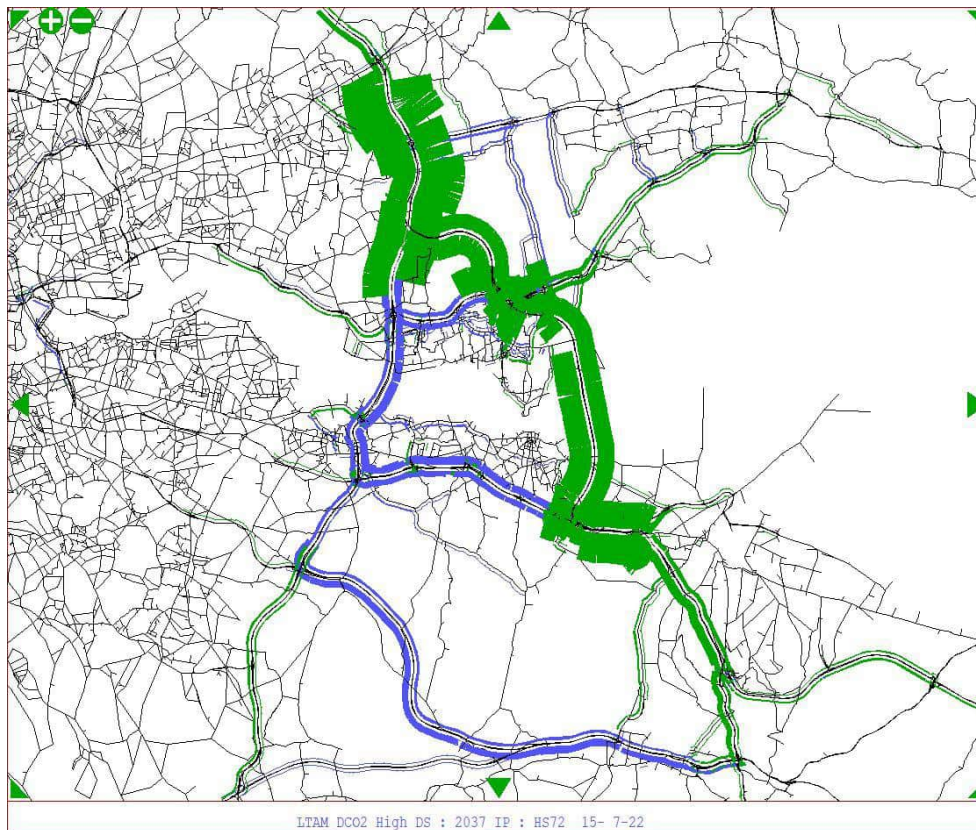
### DM Vs DS Flow Comparisons

- D.7.7 The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Plate D.70 to Plate D.72 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCUs per hour have been excluded from the colouring.
- D.7.8 Table D.143 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link approaching the TMC. Table D.144 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link after the TMC.

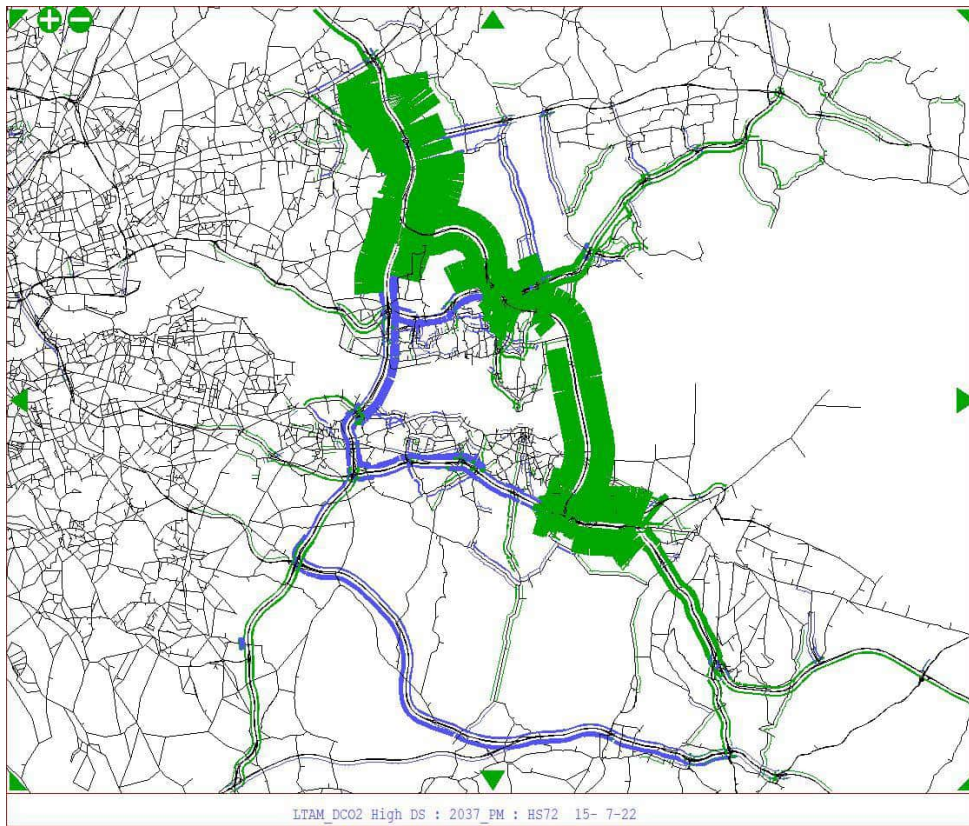
**Plate D.70 Actual Flow Comparison Plot – 2037 High Growth DM Vs DS AM Peak**



**Plate D.71 Actual Flow Comparison Plot – 2037 High Growth DM Vs DS Inter Peak**



### Plate D.72 Actual Flow Comparison Plot – 2037 High Growth DM Vs DS PM Peak



**Table D.143 Cross River Traffic Flows (NB Flows Approaching TMC) – 2037 High Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,354	3,708	354	11%	1,845	1,801	-44	-2%	3,300	2,850	-450	-14%	8,500	8,360	-141	-2%	8,500	1.00	0.98
		IP	3,523	3,097	-426	-12%	962	804	-158	-16%	3,361	2,396	-965	-29%	7,846	6,297	-1,549	-20%	8,500	0.92	0.74
		PM	4,925	4,284	-641	-13%	1,231	958	-272	-22%	2,279	1,507	-773	-34%	8,435	6,749	-1,686	-20%	8,500	0.99	0.79
	LTC	AM	0	2,315	-	-	0	369	-	-	0	1,063	-	-	0	3,747	-	-	6,360	-	0.59
		IP	0	1,920	-	-	0	207	-	-	0	1,072	-	-	0	3,200	-	-	6,360	-	0.50
		PM	0	3,479	-	-	0	342	-	-	0	830	-	-	0	4,652	-	-	6,360	-	0.73
	Total	AM	3,354	6,023	2,669	80%	1,845	2,170	325	18%	3,300	3,913	613	19%	8,500	12,106	3,606	42%	14,860	-	0.81
		IP	3,523	5,018	1,494	42%	962	1,011	48	5%	3,361	3,468	108	3%	7,846	9,497	1,651	21%	14,860	-	0.64
		PM	4,925	7,763	2,838	58%	1,231	1,301	70	6%	2,279	2,337	58	3%	8,435	11,401	2,966	35%	14,860	-	0.77
	NB	Dartford*	AM	3,619	3,478	-141	-4%	1,556	1,124	-432	-28%	2,593	1,773	-820	-32%	7,767	6,375	-1,392	-18%	6,981	1.11
IP			3,118	3,144	26	1%	1,035	789	-246	-24%	3,603	2,372	-1,231	-34%	7,757	6,306	-1,451	-19%	6,890	1.13	0.92
PM			4,499	4,239	-260	-6%	1,097	903	-195	-18%	2,142	1,473	-669	-31%	7,739	6,614	-1,124	-15%	6,762	1.14	0.98
LTC		AM	0	3,200	-	-	0	656	-	-	0	1,145	-	-	0	5,001	-	-	6,360	-	0.79
		IP	0	2,316	-	-	0	377	-	-	0	1,570	-	-	0	4,262	-	-	6,360	-	0.67

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
		PM	0	2,903	-	-	0	286	-	-	0	753	-	-	0	3,943	-	-	6,360	-	0.62
	Total	AM	3,619	6,678	3,060	85%	1,556	1,780	224	14%	2,593	2,918	325	13%	7,767	11,376	3,609	46%	13,341	-	0.85
		IP	3,118	5,460	2,342	75%	1,035	1,166	131	13%	3,603	3,942	339	9%	7,757	10,568	2,811	36%	13,250	-	0.80
		PM	4,499	7,142	2,642	59%	1,097	1,189	92	8%	2,142	2,226	84	4%	7,739	10,557	2,818	36%	13,122	-	0.80

\* Flows are extracted for the link approaching the TMC

**Table D.144 Cross River Traffic Flows (NB Flows After TMC) – 2037 High Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,354	3,708	354	11%	1,845	1,801	-44	-2%	3,300	2,850	-450	-14%	8,500	8,360	-141	-2%	8,500	1.00	0.98
		IP	3,523	3,097	-426	-12%	962	804	-158	-16%	3,361	2,396	-965	-29%	7,846	6,297	-1,549	-20%	8,500	0.92	0.74
		PM	4,925	4,284	-641	-13%	1,231	958	-272	-22%	2,279	1,507	-773	-34%	8,435	6,749	-1,686	-20%	8,500	0.99	0.79
	LTC	AM	0	2,315	-	-	0	369	-	-	0	1,063	-	-	0	3,747	-	-	6,360	-	0.59
		IP	0	1,920	-	-	0	207	-	-	0	1,072	-	-	0	3,200	-	-	6,360	-	0.50
		PM	0	3,479	-	-	0	342	-	-	0	830	-	-	0	4,652	-	-	6,360	-	0.73
	Total	AM	3,354	6,023	2,669	80%	1,845	2,170	325	18%	3,300	3,913	613	19%	8,500	12,106	3,606	42%	14,860	-	0.81
		IP	3,523	5,018	1,494	42%	962	1,011	48	5%	3,361	3,468	108	3%	7,846	9,497	1,651	21%	14,860	-	0.64
		PM	4,925	7,763	2,838	58%	1,231	1,301	70	6%	2,279	2,337	58	3%	8,435	11,401	2,966	35%	14,860	-	0.77



Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
NB	Dartford*	AM	3,257	3,478	222	7%	1,399	1,124	-276	-20%	2,325	1,773	-552	-24%	6,981	6,375	-607	-9%	6,981	1.00	0.91
		IP	2,771	3,144	374	13%	920	789	-131	-14%	3,200	2,372	-827	-26%	6,890	6,306	-584	-8%	6,890	1.00	0.92
		PM	3,930	4,239	308	8%	959	903	-56	-6%	1,872	1,473	-399	-21%	6,762	6,614	-147	-2%	6,762	1.00	0.98
	LTC	AM	0	3,200	-	-	0	656	-	-	0	1,145	-	-	0	5,001	-	-	6,360	-	0.79
		IP	0	2,316	-	-	0	377	-	-	0	1,570	-	-	0	4,262	-	-	6,360	-	0.67
		PM	0	2,903	-	-	0	286	-	-	0	753	-	-	0	3,943	-	-	6,360	-	0.62
	Total	AM	3,257	6,678	3,422	105%	1,399	1,780	380	27%	2,325	2,918	592	25%	6,981	11,376	4,394	63%	13,341	-	0.85
		IP	2,771	5,460	2,689	97%	920	1,166	246	27%	3,200	3,942	742	23%	6,890	10,568	3,678	53%	13,250	-	0.80
		PM	3,930	7,142	3,211	82%	959	1,189	230	24%	1,872	2,226	354	19%	6,762	10,557	3,795	56%	13,122	-	0.80

\* Flows are extracted for the link after the TMC

D.7.9 The movements considered critical to understanding the impacts of the scheme are the same as those described in Chapter 8 of the main document. Table D.145 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

**Table D.145 Key Corridor Traffic Flows – 2037 High Growth DM Vs DS (Hourly Flows in PCUs)**

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	7,789	9,180	0.85	9,070	9,180	0.99	1,281	16%
		IP	7,085	9,180	0.77	8,251	9,180	0.90	1,166	16%
		PM	7,162	9,180	0.78	8,230	9,180	0.90	1,068	15%
	M25 J28 to M25 J29 (SB)	AM	7,901	9,115	0.87	8,091	9,180	0.88	190	2%
		IP	7,768	9,115	0.85	8,147	9,180	0.89	379	5%
		PM	8,022	9,115	0.88	8,447	9,180	0.92	425	5%
B	M25 J4 to M25 J3 (NB)	AM	5,716	6,850	0.83	5,909	6,850	0.86	193	3%
		IP	5,791	6,850	0.85	6,104	6,850	0.89	313	5%
		PM	6,366	6,850	0.93	6,526	6,850	0.95	160	3%
	M25 J3 to M25 J4 (SB)	AM	6,842	6,850	1.00	6,844	6,850	1.00	1	0%
		IP	5,626	6,850	0.82	5,772	6,850	0.84	147	3%
		PM	5,943	6,850	0.87	6,232	6,850	0.91	289	5%
C	A13 A126 to A1012 (EB)	AM	5,102	6,307	0.81	4,334	6,294	0.69	-768	-15%
		IP	5,280	6,299	0.84	4,571	6,280	0.73	-709	-13%
		PM	5,743	6,266	0.92	5,750	6,235	0.92	7	0%
	A13 A1012 to A126 (WB)	AM	6,158	6,360	0.97	5,460	6,360	0.86	-699	-11%
		IP	5,687	6,360	0.89	4,808	6,360	0.76	-880	-15%
		PM	5,991	6,360	0.94	4,937	6,360	0.78	-1,054	-18%
D	A13 Orsett Cock to Manor Way (EB)	AM	4,921	6,370	0.77	5,499	6,370	0.86	579	12%
		IP	4,358	6,370	0.68	5,146	6,370	0.81	788	18%
		PM	5,064	6,370	0.79	5,974	6,370	0.94	910	18%
	A13 Manor Way to Orsett Cock (WB)	AM	5,263	6,220	0.85	5,854	6,220	0.94	590	11%
		IP	4,544	6,220	0.73	5,257	6,220	0.85	713	16%
		PM	4,918	6,220	0.79	5,852	6,220	0.94	934	19%

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
E	A2 A227 to Gravesend East (EB)	AM	6,446	9,229	0.70	5,457	9,223	0.59	-989	-15%
		IP	6,812	9,187	0.74	5,690	9,177	0.62	-1,123	-16%
		PM	9,069	9,184	0.99	8,725	9,163	0.95	-344	-4%
	A2 Gravesend East to A227 (WB)	AM	7,255	7,294	0.99	6,552	6,997	0.94	-703	-10%
		IP	6,149	7,056	0.87	5,319	6,904	0.77	-830	-13%
		PM	6,199	6,812	0.91	5,708	6,697	0.85	-491	-8%
F	M2 J1 to M2 J2 (EB)	AM	5,781	8,556	0.68	6,600	8,419	0.78	819	14%
		IP	5,066	8,689	0.58	5,798	8,626	0.67	733	14%
		PM	6,574	8,602	0.76	7,822	8,441	0.93	1,248	19%
	M2 J2 to M2 J1 (WB)	AM	6,301	8,807	0.72	7,678	8,585	0.89	1,377	22%
		IP	4,448	8,852	0.50	6,234	8,718	0.72	1,786	40%
		PM	5,557	8,930	0.62	6,557	8,756	0.75	1,000	18%
G	M20 J3 to M20 J4 (EB)	AM	6,382	9,115	0.70	6,015	9,115	0.66	-366	-6%
		IP	6,341	9,115	0.70	5,920	9,115	0.65	-421	-7%
		PM	8,813	9,115	0.97	8,538	9,115	0.94	-275	-3%
	M20 J4 to M20 J3 (WB)	AM	8,831	9,115	0.97	8,160	9,115	0.90	-671	-8%
		IP	6,262	9,115	0.69	5,056	9,115	0.55	-1,206	-19%
		PM	6,157	9,115	0.68	5,394	9,115	0.59	-764	-12%

### DM Vs DS Journey Time Comparisons

- D.7.10 The same link based and route based journey time comparisons introduced under Chapter 8 of the main document are repeated for this year scenario combination.
- D.7.11 The link based journey time comparisons for this scenario are presented in Table D.146 to Table D.148.
- D.7.12 Table D.149 to Table D.154 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

**Table D.146 Link Based Journey Time Scenario Comparison (2037 High Growth DM Vs DS) AM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance	Time	Av Speed
M25 clockwise	A to B	M25 J26	M25 J29	23.5	17.4	81.3	23.5	18.0	78.2	0.0	0.7	-3.1	-0.1%	3.8%	-3.8%
	B to D	M25 J29	M25 J2	18.8	21.7	52.0	18.9	16.1	70.1	0.1	-5.6	18.2	0.3%	-25.7%	35.0%
	D to F	M25 J2	M25 J7	37.7	31.4	72.1	37.7	33.6	67.3	0.0	2.2	-4.7	0.0%	7.0%	-6.5%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	26.8	85.2	38.0	26.9	84.7	0.0	0.2	-0.6	0.0%	0.7%	-0.7%
	D to B	M25 J2	M25 J29	18.7	21.7	51.8	18.8	14.9	75.9	0.1	-6.8	24.1	0.6%	-31.4%	46.7%
	B to A	M25 J29	M25 J26	23.2	17.9	77.9	23.1	21.1	65.8	-0.1	3.2	-12.0	-0.3%	17.9%	-15.4%
A13 EB	C to G	M25 J30	A1089	5.2	5.2	59.7	5.3	4.3	73.9	0.0	-1.0	14.2	0.9%	-18.5%	23.8%
	G to H	A1089	A130	15.7	12.8	73.8	15.7	13.9	67.7	-0.1	1.1	-6.1	-0.4%	8.6%	-8.3%
A13 WB	H to G	A130	A1089	15.3	15.2	60.1	15.2	17.6	51.7	-0.1	2.4	-8.4	-0.7%	15.4%	-13.9%
	G to C	A1089	M25 J30	5.5	9.3	35.5	5.6	6.0	56.2	0.1	-3.3	20.8	1.6%	-35.9%	58.5%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	9.5	96.9	15.3	9.0	102.1	0.1	-0.4	5.2	0.5%	-4.6%	5.3%
	I to J	M2 J1	M2 J4	14.7	8.6	102.2	14.7	9.1	97.3	0.0	0.4	-4.9	0.0%	5.0%	-4.8%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	9.4	97.2	15.1	10.4	86.7	-0.1	1.1	-10.5	-0.7%	11.4%	-10.8%
	I to D	M2 J1	M25 J2	14.8	20.1	44.0	14.8	13.9	64.1	0.1	-6.2	20.1	0.6%	-30.9%	45.6%
M20 EB	E to K	M25 J3	M20 J8	35.3	20.8	102.1	35.3	20.5	103.3	0.0	-0.2	1.2	0.0%	-1.1%	1.1%
M20 WB	K to E	M20 J8	M25 J3	35.3	26.6	79.7	35.3	24.3	87.1	0.0	-2.3	7.4	0.0%	-8.5%	9.3%

**Table D.147 Link Based Journey Time Scenario Comparison (2037 High Growth DM Vs DS) Inter Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance	Time	Av Speed
M25 clockwise	A to B	M25 J26	M25 J29	23.5	17.2	82.2	23.5	17.8	79.3	0.0	0.6	-2.9	-0.1%	3.6%	-3.6%
	B to D	M25 J29	M25 J2	18.8	14.9	75.7	18.9	12.8	88.3	0.1	-2.1	12.6	0.3%	-14.0%	16.6%
	D to F	M25 J2	M25 J7	37.7	25.9	87.6	37.7	26.0	87.2	0.0	0.1	-0.3	0.0%	0.4%	-0.4%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	26.5	85.9	38.0	27.5	83.0	0.0	0.9	-2.9	0.0%	3.5%	-3.4%
	D to B	M25 J2	M25 J29	18.7	21.1	53.2	18.8	13.9	81.5	0.1	-7.2	28.3	0.6%	-34.3%	53.2%
	B to A	M25 J29	M25 J26	23.2	15.1	92.4	23.1	17.0	81.5	-0.1	2.0	-10.9	-0.3%	13.1%	-11.8%
A13 EB	C to G	M25 J30	A1089	5.2	5.6	55.6	5.3	4.5	69.6	0.0	-1.1	13.9	0.9%	-19.3%	25.0%
	G to H	A1089	A130	15.7	11.7	80.8	15.7	12.9	72.6	-0.1	1.3	-8.2	-0.4%	10.9%	-10.1%
A13 WB	H to G	A130	A1089	15.3	11.9	77.3	15.2	13.3	68.3	-0.1	1.5	-9.0	-0.7%	12.4%	-11.6%
	G to C	A1089	M25 J30	5.5	6.7	49.0	5.6	5.0	66.9	0.1	-1.7	17.9	1.6%	-25.6%	36.5%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	9.7	94.1	15.3	9.0	102.1	0.1	-0.7	8.0	0.5%	-7.4%	8.5%
	I to J	M2 J1	M2 J4	14.7	8.5	104.2	14.7	8.6	102.0	0.0	0.2	-2.2	0.0%	2.2%	-2.1%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	8.6	106.3	15.1	8.9	101.8	-0.1	0.3	-4.5	-0.7%	3.7%	-4.2%
	I to D	M2 J1	M25 J2	14.8	12.2	72.8	14.8	9.4	94.4	0.1	-2.7	21.6	0.6%	-22.5%	29.7%
M20 EB	E to K	M25 J3	M20 J8	35.3	20.5	103.5	35.3	20.3	104.5	0.0	-0.2	1.0	0.0%	-1.0%	1.0%
M20 WB	K to E	M20 J8	M25 J3	35.3	20.6	102.8	35.3	20.1	105.4	0.0	-0.5	2.6	0.0%	-2.5%	2.6%

**Table D.148 Link Based Journey Time Scenario Comparison (2037 High Growth DM Vs DS) PM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance	Time	Av Speed
M25 clockwise	A to B	M25 J26	M25 J29	23.5	19.2	73.4	23.5	20.2	69.8	0.0	1.0	-3.6	-0.1%	5.0%	-4.9%
	B to D	M25 J29	M25 J2	18.8	17.5	64.4	18.9	13.6	83.1	0.1	-3.9	18.7	0.3%	-22.3%	29.0%
	D to F	M25 J2	M25 J7	37.7	24.9	90.9	37.7	25.6	88.5	0.0	0.7	-2.4	0.0%	2.7%	-2.6%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	31.3	72.8	38.0	32.1	71.1	0.0	0.8	-1.7	0.0%	2.4%	-2.3%
	D to B	M25 J2	M25 J29	18.7	19.8	56.5	18.8	14.3	79.0	0.1	-5.6	22.5	0.6%	-28.0%	39.7%
	B to A	M25 J29	M25 J26	23.2	14.8	93.9	23.1	16.4	84.8	-0.1	1.5	-9.0	-0.3%	10.3%	-9.6%
A13 EB	C to G	M25 J30	A1089	5.2	9.0	34.6	5.3	5.9	53.1	0.0	-3.1	18.6	0.9%	-34.3%	53.7%
	G to H	A1089	A130	15.7	13.3	70.9	15.7	15.1	62.4	-0.1	1.8	-8.6	-0.4%	13.3%	-12.1%
A13 WB	H to G	A130	A1089	15.3	12.1	75.6	15.2	14.9	61.1	-0.1	2.8	-14.5	-0.7%	22.8%	-19.1%
	G to C	A1089	M25 J30	5.5	7.8	42.2	5.6	5.3	63.7	0.1	-2.6	21.5	1.6%	-32.7%	51.0%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	15.5	59.2	15.3	11.6	79.7	0.1	-3.9	20.5	0.5%	-25.3%	34.6%
	I to J	M2 J1	M2 J4	14.7	9.8	90.2	14.7	12.5	70.7	0.0	2.7	-19.4	0.0%	27.5%	-21.6%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	9.0	101.7	15.1	9.2	98.3	-0.1	0.3	-3.4	-0.7%	2.8%	-3.4%
	I to D	M2 J1	M25 J2	14.8	15.6	56.9	14.8	11.3	78.8	0.1	-4.3	21.9	0.6%	-27.3%	38.4%
M20 EB	E to K	M25 J3	M20 J8	35.3	26.9	78.9	35.3	25.5	83.3	0.0	-1.4	4.3	0.0%	-5.2%	5.5%
M20 WB	K to E	M20 J8	M25 J3	35.3	20.8	101.8	35.3	20.4	103.8	0.0	-0.4	2.0	0.0%	-1.9%	2.0%

**Table D.149 Route Based Journey Time Comparison North to South Movements (2037 High Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
1 to 7	Cheshunt	Bexley	61.9	67.4	55.1	61.9	64.7	57.4	0.0	-2.7	2.3	0.0%	-4.0%	4.2%
1 to 8	Cheshunt	Godstone	91.5	87.5	62.8	91.6	84.7	64.8	0.0	-2.7	2.0	0.0%	-3.1%	3.2%
1 to 9	Cheshunt	Southfleet	62.1	62.2	59.9	62.2	57.0	65.5	0.1	-5.2	5.6	0.2%	-8.3%	9.3%
1 to 10	Cheshunt	Maidstone	88.2	80.1	66.0	87.9	75.1	70.3	-0.2	-5.1	4.3	-0.3%	-6.3%	6.4%
1 to 11	Cheshunt	Rochester	74.5	80.1	55.8	70.3	68.3	61.8	-4.2	-11.8	6.0	-5.6%	-14.7%	10.7%
1 to 12	Cheshunt	Rainham	91.4	85.4	64.2	87.3	74.1	70.7	-4.1	-11.3	6.5	-4.5%	-13.2%	10.1%
2 to 7	Romford	Bexley	31.9	56.5	33.8	35.7	51.4	41.7	3.9	-5.1	7.9	12.1%	-9.1%	23.4%
2 to 8	Romford	Godstone	61.6	76.6	48.2	65.4	71.4	55.0	3.9	-5.2	6.8	6.3%	-6.8%	14.0%
2 to 9	Romford	Southfleet	32.1	51.3	37.6	36.1	43.6	49.6	3.9	-7.7	12.0	12.3%	-14.9%	32.0%
2 to 10	Romford	Maidstone	58.2	69.2	50.4	61.8	61.7	60.1	3.6	-7.5	9.7	6.2%	-10.9%	19.1%
2 to 11	Romford	Rochester	44.5	69.2	38.6	44.2	55.0	48.3	-0.3	-14.2	9.7	-0.7%	-20.6%	25.0%
2 to 12	Romford	Rainham	61.5	74.5	49.5	61.2	60.8	60.4	-0.3	-13.8	11.0	-0.4%	-18.5%	22.2%
3 to 7	Brentwood	Bexley	33.0	47.6	41.6	32.9	43.0	46.0	-0.1	-4.6	4.4	-0.2%	-9.7%	10.5%
3 to 8	Brentwood	Godstone	62.7	67.6	55.6	62.6	63.0	59.6	-0.1	-4.7	4.0	-0.1%	-6.9%	7.3%
3 to 9	Brentwood	Southfleet	33.2	42.3	47.1	33.2	35.2	56.6	0.0	-7.1	9.5	0.0%	-16.8%	20.2%
3 to 10	Brentwood	Maidstone	59.3	60.3	59.0	59.0	53.3	66.4	-0.4	-7.0	7.4	-0.6%	-11.6%	12.5%
3 to 11	Brentwood	Rochester	45.6	60.3	45.4	41.4	46.6	53.3	-4.3	-13.7	7.9	-9.3%	-22.7%	17.3%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
3 to 12	Brentwood	Rainham	62.6	65.6	57.2	58.4	52.4	66.9	-4.2	-13.2	9.7	-6.7%	-20.2%	16.9%
4 to 7	Basildon	Bexley	39.7	60.3	39.5	39.6	55.6	42.7	-0.1	-4.7	3.2	-0.2%	-7.8%	8.2%
4 to 8	Basildon	Godstone	69.4	80.4	51.8	69.3	75.7	55.0	-0.1	-4.7	3.2	-0.1%	-5.9%	6.1%
4 to 9	Basildon	Southfleet	40.0	55.1	43.5	34.9	42.4	49.5	-5.0	-12.7	6.0	-12.5%	-23.1%	13.7%
4 to 10	Basildon	Maidstone	66.0	73.1	54.2	49.2	60.7	48.6	-16.9	-12.4	-5.6	-25.6%	-17.0%	-10.4%
4 to 11	Basildon	Rochester	52.3	73.0	43.0	36.6	52.5	41.8	-15.8	-20.5	-1.2	-30.1%	-28.1%	-2.8%
4 to 12	Basildon	Rainham	69.3	78.4	53.1	53.6	58.3	55.1	-15.7	-20.0	2.1	-22.6%	-25.6%	3.9%
5 to 7	Tilbury Port	Bexley	28.3	46.2	36.8	28.3	43.0	39.5	0.0	-3.2	2.7	0.0%	-6.9%	7.5%
5 to 8	Tilbury Port	Godstone	58.0	66.3	52.5	58.0	63.0	55.2	0.0	-3.3	2.7	0.0%	-4.9%	5.2%
5 to 9	Tilbury Port	Southfleet	28.6	40.9	41.8	27.7	29.1	57.2	-0.8	-11.9	15.3	-2.9%	-28.9%	36.7%
5 to 10	Tilbury Port	Maidstone	54.6	58.9	55.7	41.9	47.4	53.1	-12.7	-11.5	-2.6	-23.2%	-19.5%	-4.6%
5 to 11	Tilbury Port	Rochester	40.9	58.9	41.7	29.4	39.3	44.9	-11.6	-19.6	3.2	-28.3%	-33.3%	7.6%
5 to 12	Tilbury Port	Rainham	57.9	64.2	54.1	46.4	45.1	61.8	-11.5	-19.1	7.7	-19.9%	-29.8%	14.1%
6 to 7	DP World	Bexley	32.1	47.1	40.9	32.1	42.1	45.7	0.0	-4.9	4.8	0.0%	-10.4%	11.6%
6 to 8	DP World	Godstone	61.8	67.1	55.2	61.8	62.2	59.6	0.0	-5.0	4.4	0.0%	-7.4%	8.0%
6 to 9	DP World	Southfleet	32.3	41.8	46.4	29.0	26.5	65.8	-3.3	-15.3	19.4	-10.2%	-36.7%	41.8%
6 to 10	DP World	Maidstone	58.4	59.8	58.7	43.3	44.8	58.0	-15.2	-15.0	-0.7	-26.0%	-25.1%	-1.2%
6 to 11	DP World	Rochester	44.7	59.7	44.9	30.7	36.7	50.2	-14.1	-23.1	5.3	-31.4%	-38.6%	11.8%
6 to 12	DP World	Rainham	61.7	65.1	56.9	47.7	42.5	67.4	-14.0	-22.6	10.5	-22.7%	-34.8%	18.5%



**Table D.150 Route Based Journey Time Comparison North to South Movements (2037 High Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
1 to 7	Cheshunt	Bexley	61.9	53.9	68.9	61.9	52.7	70.4	0.0	-1.1	1.5	0.0%	-2.1%	2.2%
1 to 8	Cheshunt	Godstone	91.6	71.4	77.0	91.6	70.1	78.4	0.0	-1.3	1.5	0.0%	-1.8%	1.9%
1 to 9	Cheshunt	Southfleet	62.2	51.4	72.6	62.2	49.4	75.5	0.0	-2.0	2.9	0.0%	-3.9%	4.0%
1 to 10	Cheshunt	Maidstone	88.2	68.2	77.6	82.9	63.9	77.9	-5.3	-4.3	0.3	-6.0%	-6.3%	0.3%
1 to 11	Cheshunt	Rochester	74.5	65.6	68.2	70.3	59.2	71.2	-4.2	-6.4	3.1	-5.7%	-9.7%	4.5%
1 to 12	Cheshunt	Rainham	91.5	73.7	74.4	87.4	67.4	77.8	-4.1	-6.3	3.3	-4.5%	-8.6%	4.5%
2 to 7	Romford	Bexley	35.6	43.0	49.6	35.6	39.6	53.9	0.0	-3.4	4.3	0.0%	-8.0%	8.7%
2 to 8	Romford	Godstone	65.2	60.5	64.7	65.3	56.9	68.8	0.0	-3.6	4.1	0.0%	-6.0%	6.3%
2 to 9	Romford	Southfleet	35.9	40.6	53.1	35.9	36.3	59.4	0.0	-4.3	6.3	0.0%	-10.5%	11.8%
2 to 10	Romford	Maidstone	61.9	57.3	64.8	56.6	50.7	66.9	-5.3	-6.6	2.1	-8.6%	-11.5%	3.3%
2 to 11	Romford	Rochester	48.2	54.7	52.9	44.0	46.1	57.3	-4.2	-8.7	4.4	-8.8%	-15.8%	8.4%
2 to 12	Romford	Rainham	65.2	62.9	62.2	61.0	54.2	67.5	-4.1	-8.6	5.3	-6.3%	-13.7%	8.6%
3 to 7	Brentwood	Bexley	33.0	35.2	56.2	32.9	33.2	59.6	-0.1	-2.1	3.4	-0.3%	-5.9%	6.0%
3 to 8	Brentwood	Godstone	62.7	52.7	71.3	62.6	50.5	74.4	-0.1	-2.3	3.1	-0.1%	-4.3%	4.3%
3 to 9	Brentwood	Southfleet	33.3	32.8	61.0	33.2	29.9	66.8	-0.1	-2.9	5.8	-0.3%	-9.0%	9.6%
3 to 10	Brentwood	Maidstone	59.3	49.6	71.8	53.9	44.3	73.0	-5.4	-5.3	1.2	-9.1%	-10.6%	1.7%
3 to 11	Brentwood	Rochester	45.7	47.0	58.3	41.3	39.7	62.6	-4.3	-7.3	4.2	-9.5%	-15.6%	7.3%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
3 to 12	Brentwood	Rainham	62.6	55.1	68.2	58.4	47.8	73.3	-4.2	-7.3	5.1	-6.7%	-13.2%	7.5%
4 to 7	Basildon	Bexley	39.7	39.6	60.1	39.6	37.2	63.9	-0.1	-2.5	3.8	-0.2%	-6.2%	6.4%
4 to 8	Basildon	Godstone	69.4	57.1	72.9	69.3	54.5	76.3	-0.1	-2.6	3.4	-0.1%	-4.6%	4.7%
4 to 9	Basildon	Southfleet	40.0	37.2	64.6	33.8	29.0	69.8	-6.3	-8.2	5.2	-15.7%	-22.0%	8.1%
4 to 10	Basildon	Maidstone	66.1	54.0	73.4	48.0	41.9	68.6	-18.1	-12.0	-4.8	-27.4%	-22.3%	-6.5%
4 to 11	Basildon	Rochester	52.4	51.4	61.2	35.4	37.3	57.0	-17.0	-14.1	-4.2	-32.4%	-27.4%	-6.9%
4 to 12	Basildon	Rainham	69.3	59.5	69.9	52.4	45.4	69.2	-16.9	-14.1	-0.7	-24.4%	-23.6%	-0.9%
5 to 7	Tilbury Port	Bexley	28.3	31.4	54.1	28.3	28.3	60.1	0.0	-3.1	5.9	0.0%	-9.9%	10.9%
5 to 8	Tilbury Port	Godstone	58.0	48.9	71.2	58.0	45.6	76.3	0.0	-3.3	5.1	0.0%	-6.7%	7.2%
5 to 9	Tilbury Port	Southfleet	28.6	28.9	59.4	27.7	19.9	83.7	-0.9	-9.1	24.3	-3.2%	-31.3%	41.0%
5 to 10	Tilbury Port	Maidstone	54.6	45.7	71.7	41.9	32.8	76.7	-12.7	-12.9	5.0	-23.3%	-28.3%	7.0%
5 to 11	Tilbury Port	Rochester	41.0	43.1	57.0	29.3	28.1	62.6	-11.6	-15.0	5.6	-28.4%	-34.8%	9.8%
5 to 12	Tilbury Port	Rainham	57.9	51.2	67.8	46.4	36.3	76.7	-11.5	-15.0	8.9	-19.9%	-29.2%	13.1%
6 to 7	DP World	Bexley	32.1	34.9	55.2	32.1	32.2	59.7	0.0	-2.6	4.5	0.0%	-7.5%	8.1%
6 to 8	DP World	Godstone	61.8	52.4	70.8	61.8	49.6	74.8	0.0	-2.8	4.0	0.0%	-5.4%	5.6%
6 to 9	DP World	Southfleet	32.4	32.4	60.0	29.0	22.2	78.4	-3.4	-10.2	18.4	-10.4%	-31.4%	30.6%
6 to 10	DP World	Maidstone	58.4	49.2	71.3	43.2	35.1	73.8	-15.2	-14.1	2.6	-26.0%	-28.6%	3.6%
6 to 11	DP World	Rochester	44.8	46.6	57.6	30.7	30.5	60.3	-14.1	-16.1	2.7	-31.5%	-34.6%	4.7%
6 to 12	DP World	Rainham	61.7	54.7	67.6	47.7	38.7	74.1	-14.0	-16.1	6.4	-22.7%	-29.4%	9.5%

**Table D.151 Route Based Journey Time Comparison North to South Movements (2037 High Growth DM Vs DS) PM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
1 to 7	Cheshunt	Bexley	61.9	63.8	58.2	61.9	61.8	60.1	0.0	-2.0	1.9	0.0%	-3.1%	3.2%
1 to 8	Cheshunt	Godstone	91.5	78.2	70.3	91.5	75.9	72.4	0.0	-2.3	2.1	0.0%	-2.9%	3.0%
1 to 9	Cheshunt	Southfleet	60.8	60.2	60.6	62.1	55.8	66.8	1.4	-4.3	6.2	2.3%	-7.2%	10.2%
1 to 10	Cheshunt	Maidstone	88.2	81.3	65.1	82.9	76.5	65.0	-5.3	-4.8	-0.1	-6.0%	-5.9%	-0.1%
1 to 11	Cheshunt	Rochester	74.8	81.5	55.1	70.7	71.3	59.5	-4.1	-10.2	4.4	-5.5%	-12.5%	8.0%
1 to 12	Cheshunt	Rainham	91.5	97.2	56.5	87.3	87.1	60.2	-4.1	-10.1	3.7	-4.5%	-10.4%	6.6%
2 to 7	Romford	Bexley	35.9	55.3	39.0	36.0	49.6	43.5	0.1	-5.7	4.6	0.2%	-10.3%	11.8%
2 to 8	Romford	Godstone	65.5	69.7	56.5	65.6	63.7	61.9	0.1	-6.0	5.4	0.2%	-8.6%	9.6%
2 to 9	Romford	Southfleet	34.8	51.7	40.4	36.2	43.6	49.8	1.5	-8.0	9.5	4.3%	-15.6%	23.5%
2 to 10	Romford	Maidstone	62.2	72.8	51.2	57.0	64.3	53.1	-5.2	-8.5	1.9	-8.4%	-11.7%	3.7%
2 to 11	Romford	Rochester	48.8	73.0	40.1	44.8	59.1	45.5	-4.0	-13.9	5.3	-8.2%	-19.0%	13.3%
2 to 12	Romford	Rainham	65.5	88.7	44.3	61.4	74.9	49.2	-4.0	-13.8	5.0	-6.1%	-15.6%	11.2%
3 to 7	Brentwood	Bexley	33.0	43.3	45.8	32.9	40.0	49.4	-0.1	-3.3	3.6	-0.3%	-7.6%	7.9%
3 to 8	Brentwood	Godstone	62.7	57.7	65.2	62.6	54.1	69.4	-0.1	-3.6	4.2	-0.1%	-6.2%	6.5%
3 to 9	Brentwood	Southfleet	31.9	39.7	48.2	33.2	34.1	58.4	1.3	-5.6	10.2	4.0%	-14.2%	21.2%
3 to 10	Brentwood	Maidstone	59.3	60.9	58.5	53.9	54.8	59.1	-5.4	-6.1	0.6	-9.1%	-10.0%	1.0%
3 to 11	Brentwood	Rochester	46.0	61.0	45.2	41.8	49.6	50.6	-4.2	-11.5	5.4	-9.1%	-18.8%	11.9%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
3 to 12	Brentwood	Rainham	62.6	76.8	48.9	58.4	65.3	53.6	-4.2	-11.4	4.7	-6.7%	-14.9%	9.6%
4 to 7	Basildon	Bexley	36.9	47.9	46.2	36.8	44.6	49.5	0.0	-3.3	3.3	-0.1%	-6.8%	7.2%
4 to 8	Basildon	Godstone	66.5	62.3	64.1	66.5	58.7	68.0	0.0	-3.6	3.9	0.0%	-5.7%	6.0%
4 to 9	Basildon	Southfleet	35.7	44.3	48.4	33.8	31.5	64.3	-2.0	-12.8	15.9	-5.5%	-28.9%	32.9%
4 to 10	Basildon	Maidstone	63.2	65.4	57.9	48.0	50.4	57.1	-15.2	-15.0	-0.8	-24.1%	-23.0%	-1.4%
4 to 11	Basildon	Rochester	49.8	65.6	45.6	35.8	45.2	47.5	-14.0	-20.4	2.0	-28.1%	-31.1%	4.4%
4 to 12	Basildon	Rainham	66.4	81.3	49.0	52.4	61.0	51.6	-14.0	-20.4	2.6	-21.1%	-25.0%	5.3%
5 to 7	Tilbury Port	Bexley	28.3	37.6	45.2	28.3	32.9	51.7	0.0	-4.8	6.5	-0.1%	-12.7%	14.4%
5 to 8	Tilbury Port	Godstone	58.0	52.0	66.9	58.0	47.0	74.1	0.0	-5.1	7.2	0.0%	-9.7%	10.8%
5 to 9	Tilbury Port	Southfleet	27.2	34.0	48.0	27.7	21.3	78.0	0.5	-12.7	30.1	1.9%	-37.4%	62.7%
5 to 10	Tilbury Port	Maidstone	54.6	55.2	59.4	41.9	40.2	62.5	-12.7	-15.0	3.1	-23.3%	-27.1%	5.2%
5 to 11	Tilbury Port	Rochester	41.3	55.3	44.8	29.8	35.0	51.0	-11.5	-20.3	6.2	-27.9%	-36.7%	13.9%
5 to 12	Tilbury Port	Rainham	57.9	71.1	48.9	46.4	50.8	54.8	-11.5	-20.3	5.9	-19.9%	-28.5%	12.1%
6 to 7	DP World	Bexley	32.1	41.5	46.5	32.1	39.2	49.1	0.0	-2.3	2.6	-0.1%	-5.5%	5.7%
6 to 8	DP World	Godstone	61.8	55.9	66.3	61.8	53.3	69.5	0.0	-2.6	3.2	0.0%	-4.6%	4.8%
6 to 9	DP World	Southfleet	31.0	37.9	49.1	29.0	26.1	66.8	-2.0	-11.8	17.7	-6.3%	-31.2%	36.1%
6 to 10	DP World	Maidstone	58.4	59.1	59.4	43.2	45.0	57.6	-15.2	-14.1	-1.7	-26.0%	-23.8%	-2.9%
6 to 11	DP World	Rochester	45.1	59.2	45.7	31.1	39.8	46.9	-14.0	-19.4	1.2	-31.0%	-32.8%	2.6%
6 to 12	DP World	Rainham	61.7	74.9	49.4	47.7	55.6	51.5	-14.0	-19.4	2.1	-22.7%	-25.9%	4.3%

**Table D.152 Route Based Journey Time Comparison South to North Movements (2037 High Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
7 to 1	Bexley	Cheshunt	61.6	61.7	59.9	61.6	58.3	63.4	0.0	-3.4	3.6	0.1%	-5.6%	6.0%
7 to 2	Bexley	Romford	34.7	48.4	43.0	35.2	41.5	50.8	0.5	-6.9	7.8	1.4%	-14.2%	18.1%
7 to 3	Bexley	Brentwood	33.1	43.2	46.1	32.6	38.0	51.5	-0.5	-5.2	5.5	-1.5%	-12.0%	11.9%
7 to 4	Bexley	Basildon	36.8	44.7	49.4	36.8	36.9	59.9	0.0	-7.8	10.4	-0.1%	-17.5%	21.1%
7 to 5	Bexley	Tilbury Port	28.6	41.3	41.5	28.6	32.9	52.1	0.0	-8.4	10.5	-0.1%	-20.3%	25.4%
7 to 6	Bexley	DP World	32.4	40.5	48.0	32.4	32.8	59.3	0.0	-7.7	11.3	-0.1%	-19.1%	23.5%
8 to 1	Godstone	Cheshunt	91.7	83.8	65.7	91.8	80.7	68.2	0.0	-3.1	2.6	0.0%	-3.7%	3.9%
8 to 2	Godstone	Romford	64.9	70.5	55.2	65.3	63.9	61.3	0.5	-6.5	6.1	0.7%	-9.3%	11.0%
8 to 3	Godstone	Brentwood	63.3	65.2	58.2	62.8	60.4	62.4	-0.5	-4.8	4.2	-0.8%	-7.4%	7.1%
8 to 4	Godstone	Basildon	67.0	66.8	60.2	66.9	59.3	67.7	0.0	-7.5	7.6	-0.1%	-11.2%	12.6%
8 to 5	Godstone	Tilbury Port	58.7	63.3	55.6	58.7	55.3	63.7	0.0	-8.0	8.1	-0.1%	-12.7%	14.5%
8 to 6	Godstone	DP World	62.5	62.6	60.0	62.5	55.2	68.0	0.0	-7.4	8.0	-0.1%	-11.8%	13.3%
9 to 1	Southfleet	Cheshunt	60.7	61.5	59.3	60.8	56.5	64.5	0.0	-5.0	5.3	0.1%	-8.1%	8.9%
9 to 2	Southfleet	Romford	33.8	48.1	42.2	34.3	39.7	51.8	0.5	-8.4	9.7	1.4%	-17.5%	22.9%
9 to 3	Southfleet	Brentwood	32.3	42.9	45.1	31.8	36.2	52.7	-0.5	-6.7	7.6	-1.5%	-15.7%	16.8%
9 to 4	Southfleet	Basildon	36.0	44.5	48.5	35.8	29.9	72.0	-0.1	-14.6	23.4	-0.4%	-32.8%	48.3%
9 to 5	Southfleet	Tilbury Port	27.7	41.0	40.5	31.4	29.5	64.0	3.7	-11.5	23.4	13.4%	-28.2%	57.8%
9 to 6	Southfleet	DP World	31.5	40.3	47.0	31.4	25.8	73.1	-0.1	-14.5	26.1	-0.4%	-36.0%	55.6%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
10 to 1	Maidstone	Cheshunt	88.3	85.4	62.0	83.3	76.0	65.7	-5.0	-9.4	3.7	-5.6%	-11.0%	6.0%
10 to 2	Maidstone	Romford	61.4	72.1	51.1	56.9	59.0	57.9	-4.5	-13.1	6.8	-7.4%	-18.2%	13.2%
10 to 3	Maidstone	Brentwood	59.8	66.8	53.7	54.3	55.4	58.8	-5.5	-11.4	5.1	-9.2%	-17.1%	9.5%
10 to 4	Maidstone	Basildon	63.5	68.4	55.7	50.3	46.6	64.8	-13.2	-21.8	9.1	-20.8%	-31.9%	16.3%
10 to 5	Maidstone	Tilbury Port	55.2	64.9	51.1	45.9	46.1	59.7	-9.4	-18.8	8.6	-16.9%	-28.9%	16.9%
10 to 6	Maidstone	DP World	59.1	64.2	55.2	45.9	42.4	64.9	-13.2	-21.7	9.6	-22.3%	-33.9%	17.4%
11 to 1	Rochester	Cheshunt	76.3	88.9	51.5	70.4	71.4	59.2	-5.8	-17.5	7.7	-7.6%	-19.7%	15.0%
11 to 2	Rochester	Romford	49.4	75.5	39.2	44.0	54.3	48.6	-5.4	-21.2	9.4	-10.9%	-28.1%	23.9%
11 to 3	Rochester	Brentwood	47.8	70.3	40.8	41.4	50.8	49.0	-6.4	-19.5	8.2	-13.3%	-27.8%	20.0%
11 to 4	Rochester	Basildon	51.5	71.9	43.0	37.5	41.9	53.6	-14.1	-29.9	10.6	-27.3%	-41.6%	24.6%
11 to 5	Rochester	Tilbury Port	43.2	68.4	37.9	33.0	41.5	47.7	-10.2	-26.9	9.8	-23.6%	-39.3%	25.9%
11 to 6	Rochester	DP World	47.1	67.6	41.7	33.0	37.8	52.4	-14.1	-29.8	10.6	-29.9%	-44.1%	25.5%
12 to 1	Rainham	Cheshunt	91.7	105.2	52.3	87.7	86.5	60.8	-4.0	-18.6	8.5	-4.4%	-17.7%	16.2%
12 to 2	Rainham	Romford	64.8	91.8	42.4	61.2	69.4	52.9	-3.6	-22.4	10.5	-5.6%	-24.4%	24.9%
12 to 3	Rainham	Brentwood	63.3	86.6	43.8	58.7	65.9	53.4	-4.6	-20.7	9.6	-7.2%	-23.9%	21.9%
12 to 4	Rainham	Basildon	67.0	88.1	45.6	54.7	57.0	57.5	-12.3	-31.1	11.9	-18.3%	-35.3%	26.2%
12 to 5	Rainham	Tilbury Port	58.7	84.7	41.6	50.2	56.6	53.2	-8.4	-28.1	11.7	-14.4%	-33.1%	28.1%
12 to 6	Rainham	DP World	62.5	83.9	44.7	50.2	52.9	57.0	-12.3	-31.0	12.3	-19.6%	-36.9%	27.5%

**Table D.153 Route Based Journey Time Comparison South to North Movements (2037 High Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
7 to 1	Bexley	Cheshunt	61.6	58.0	63.7	61.6	53.6	69.0	0.0	-4.4	5.3	0.1%	-7.6%	8.3%
7 to 2	Bexley	Romford	35.8	43.5	49.4	34.7	37.0	56.2	-1.1	-6.5	6.9	-3.0%	-14.9%	13.9%
7 to 3	Bexley	Brentwood	33.1	41.3	48.1	33.2	34.9	57.0	0.0	-6.4	8.9	0.1%	-15.6%	18.5%
7 to 4	Bexley	Basildon	36.8	44.9	49.2	36.8	37.3	59.3	0.0	-7.6	10.0	-0.1%	-17.0%	20.4%
7 to 5	Bexley	Tilbury Port	31.9	41.4	46.3	31.9	33.1	57.9	0.0	-8.3	11.5	0.0%	-20.0%	24.9%
7 to 6	Bexley	DP World	32.4	40.6	47.9	32.4	32.8	59.3	0.0	-7.8	11.4	-0.1%	-19.3%	23.8%
8 to 1	Godstone	Cheshunt	91.8	78.7	70.0	91.8	74.7	73.7	0.0	-4.0	3.8	0.1%	-5.1%	5.4%
8 to 2	Godstone	Romford	65.9	64.2	61.7	64.9	58.1	67.0	-1.1	-6.1	5.3	-1.6%	-9.4%	8.6%
8 to 3	Godstone	Brentwood	63.3	62.0	61.3	63.4	56.0	67.9	0.0	-6.0	6.6	0.1%	-9.7%	10.8%
8 to 4	Godstone	Basildon	67.0	65.6	61.3	67.0	58.4	68.9	0.0	-7.2	7.6	0.0%	-11.0%	12.4%
8 to 5	Godstone	Tilbury Port	62.1	62.1	60.1	62.1	54.2	68.8	0.0	-7.9	8.7	0.0%	-12.7%	14.5%
8 to 6	Godstone	DP World	62.6	61.3	61.2	62.6	53.9	69.7	0.0	-7.4	8.4	0.0%	-12.1%	13.7%
9 to 1	Southfleet	Cheshunt	60.7	57.7	63.2	60.8	51.2	71.2	0.0	-6.4	8.0	0.1%	-11.2%	12.7%
9 to 2	Southfleet	Romford	34.9	43.1	48.5	33.8	34.6	58.6	-1.1	-8.5	10.1	-3.1%	-19.7%	20.8%
9 to 3	Southfleet	Brentwood	32.3	41.0	47.2	32.3	32.5	59.6	0.0	-8.5	12.4	0.1%	-20.7%	26.2%
9 to 4	Southfleet	Basildon	36.0	44.6	48.4	35.8	29.3	73.5	-0.1	-15.3	25.1	-0.4%	-34.4%	51.8%
9 to 5	Southfleet	Tilbury Port	31.1	41.0	45.4	34.8	28.6	73.0	3.7	-12.4	27.6	11.9%	-30.3%	60.7%
9 to 6	Southfleet	DP World	31.5	40.3	47.0	31.4	24.8	76.1	-0.1	-15.5	29.1	-0.4%	-38.5%	62.0%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
10 to 1	Maidstone	Cheshunt	88.3	74.8	70.8	83.3	64.9	77.0	-5.0	-9.9	6.2	-5.6%	-13.2%	8.7%
10 to 2	Maidstone	Romford	62.4	60.3	62.2	56.4	48.2	70.1	-6.1	-12.0	8.0	-9.7%	-20.0%	12.8%
10 to 3	Maidstone	Brentwood	59.8	58.1	61.8	54.9	45.5	72.4	-4.9	-12.7	10.6	-8.3%	-21.8%	17.2%
10 to 4	Maidstone	Basildon	63.5	61.7	61.8	50.3	40.7	74.2	-13.2	-21.0	12.4	-20.8%	-34.0%	20.1%
10 to 5	Maidstone	Tilbury Port	58.6	58.2	60.5	49.2	40.0	73.8	-9.4	-18.1	13.4	-16.0%	-31.2%	22.1%
10 to 6	Maidstone	DP World	59.1	57.4	61.7	45.9	36.2	76.0	-13.2	-21.2	14.3	-22.3%	-36.9%	23.1%
11 to 1	Rochester	Cheshunt	74.5	75.7	59.0	70.3	61.5	68.6	-4.2	-14.2	9.6	-5.6%	-18.8%	16.3%
11 to 2	Rochester	Romford	48.6	61.2	47.7	43.3	44.8	58.1	-5.3	-16.4	10.4	-10.9%	-26.8%	21.8%
11 to 3	Rochester	Brentwood	46.0	59.0	46.8	41.9	42.0	59.8	-4.2	-17.0	13.0	-9.0%	-28.8%	27.8%
11 to 4	Rochester	Basildon	49.7	62.6	47.6	37.3	37.2	60.1	-12.4	-25.4	12.5	-25.0%	-40.5%	26.2%
11 to 5	Rochester	Tilbury Port	44.8	59.1	45.5	36.2	36.6	59.4	-8.6	-22.5	13.9	-19.1%	-38.1%	30.6%
11 to 6	Rochester	DP World	45.3	58.3	46.6	32.9	32.7	60.2	-12.4	-25.6	13.6	-27.4%	-43.9%	29.3%
12 to 1	Rainham	Cheshunt	91.7	84.0	65.5	87.7	69.5	75.7	-4.0	-14.6	10.3	-4.4%	-17.3%	15.7%
12 to 2	Rainham	Romford	65.9	69.5	56.9	60.7	52.8	69.0	-5.2	-16.7	12.2	-7.8%	-24.1%	21.4%
12 to 3	Rainham	Brentwood	63.3	67.4	56.3	59.2	50.0	71.1	-4.0	-17.4	14.7	-6.4%	-25.8%	26.2%
12 to 4	Rainham	Basildon	67.0	70.9	56.6	54.7	45.2	72.5	-12.3	-25.7	15.9	-18.3%	-36.2%	28.1%
12 to 5	Rainham	Tilbury Port	62.0	67.4	55.2	53.6	44.6	72.2	-8.4	-22.8	17.0	-13.6%	-33.9%	30.7%
12 to 6	Rainham	DP World	62.5	66.6	56.3	50.2	40.7	74.0	-12.3	-25.9	17.7	-19.6%	-38.9%	31.5%



**Table D.154 Route Based Journey Time Comparison South to North Movements (2037 High Growth DM Vs DS) PM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
7 to 1	Bexley	Cheshunt	61.6	63.3	58.3	61.6	59.5	62.1	0.0	-3.8	3.8	0.1%	-6.0%	6.5%
7 to 2	Bexley	Romford	34.8	48.8	42.7	34.8	43.1	48.4	0.0	-5.7	5.7	0.0%	-11.8%	13.3%
7 to 3	Bexley	Brentwood	33.1	42.8	46.5	33.2	37.4	53.3	0.0	-5.4	6.8	0.1%	-12.6%	14.5%
7 to 4	Bexley	Basildon	36.8	51.5	42.9	36.8	43.9	50.3	0.0	-7.5	7.3	0.0%	-14.6%	17.1%
7 to 5	Bexley	Tilbury Port	28.6	40.8	42.0	28.6	33.3	51.5	0.0	-7.5	9.5	0.0%	-18.4%	22.6%
7 to 6	Bexley	DP World	32.4	45.0	43.2	32.4	37.5	51.7	0.0	-7.5	8.6	0.0%	-16.6%	19.9%
8 to 1	Godstone	Cheshunt	91.2	86.8	63.1	91.3	83.8	65.4	0.0	-3.0	2.3	0.1%	-3.5%	3.7%
8 to 2	Godstone	Romford	64.4	72.3	53.5	64.4	67.3	57.4	0.0	-5.0	3.9	0.0%	-6.9%	7.4%
8 to 3	Godstone	Brentwood	62.8	66.2	56.9	62.8	61.6	61.2	0.0	-4.6	4.3	0.1%	-7.0%	7.5%
8 to 4	Godstone	Basildon	66.5	74.9	53.3	66.5	68.2	58.5	0.0	-6.7	5.3	0.0%	-9.0%	9.9%
8 to 5	Godstone	Tilbury Port	58.2	64.3	54.4	58.2	57.5	60.7	0.0	-6.7	6.4	0.0%	-10.5%	11.7%
8 to 6	Godstone	DP World	62.0	68.5	54.4	62.0	61.8	60.3	0.0	-6.7	5.9	0.0%	-9.8%	10.9%
9 to 1	Southfleet	Cheshunt	60.7	60.8	59.9	60.8	56.3	64.8	0.0	-4.5	4.9	0.1%	-7.5%	8.1%
9 to 2	Southfleet	Romford	33.9	46.2	44.0	33.9	39.8	51.1	0.0	-6.5	7.1	0.0%	-14.0%	16.2%
9 to 3	Southfleet	Brentwood	32.3	40.2	48.2	32.3	34.1	56.9	0.0	-6.1	8.7	0.1%	-15.2%	18.0%
9 to 4	Southfleet	Basildon	36.0	48.9	44.1	35.8	35.1	61.3	-0.1	-13.8	17.1	-0.4%	-28.2%	38.8%
9 to 5	Southfleet	Tilbury Port	27.7	38.2	43.5	31.4	28.7	65.6	3.7	-9.5	22.1	13.4%	-24.9%	50.9%
9 to 6	Southfleet	DP World	31.5	42.5	44.5	31.4	28.7	65.6	-0.1	-13.8	21.1	-0.4%	-32.4%	47.4%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
10 to 1	Maidstone	Cheshunt	88.3	80.7	65.7	83.3	75.2	66.5	-4.9	-5.5	0.9	-5.6%	-6.8%	1.3%
10 to 2	Maidstone	Romford	61.5	66.1	55.8	56.4	58.6	57.7	-5.0	-7.5	2.0	-8.2%	-11.3%	3.5%
10 to 3	Maidstone	Brentwood	59.8	60.1	59.8	54.9	52.8	62.4	-4.9	-7.3	2.7	-8.3%	-12.2%	4.4%
10 to 4	Maidstone	Basildon	63.5	68.8	55.4	50.3	50.0	60.4	-13.2	-18.8	5.0	-20.8%	-27.3%	9.0%
10 to 5	Maidstone	Tilbury Port	55.2	58.1	57.0	45.9	43.6	63.1	-9.4	-14.5	6.1	-16.9%	-25.0%	10.7%
10 to 6	Maidstone	DP World	59.1	62.3	56.9	45.9	43.6	63.1	-13.2	-18.8	6.3	-22.3%	-30.1%	11.1%
11 to 1	Rochester	Cheshunt	74.5	88.6	50.4	70.3	73.2	57.7	-4.2	-15.4	7.2	-5.6%	-17.4%	14.3%
11 to 2	Rochester	Romford	47.7	74.1	38.6	43.4	56.7	46.0	-4.2	-17.4	7.4	-8.9%	-23.5%	19.1%
11 to 3	Rochester	Brentwood	46.0	68.0	40.6	41.9	50.8	49.5	-4.2	-17.2	8.9	-9.0%	-25.4%	21.9%
11 to 4	Rochester	Basildon	49.7	76.7	38.9	37.3	48.0	46.6	-12.4	-28.7	7.7	-25.0%	-37.4%	19.9%
11 to 5	Rochester	Tilbury Port	41.4	66.1	37.6	32.9	41.6	47.4	-8.6	-24.4	9.7	-20.7%	-37.0%	25.9%
11 to 6	Rochester	DP World	45.3	70.3	38.6	32.9	41.6	47.4	-12.4	-28.7	8.7	-27.4%	-40.8%	22.6%
12 to 1	Rainham	Cheshunt	91.7	94.1	58.4	87.7	77.6	67.8	-4.0	-16.5	9.3	-4.4%	-17.6%	16.0%
12 to 2	Rainham	Romford	64.9	79.6	48.9	60.8	61.1	59.7	-4.1	-18.5	10.8	-6.3%	-23.2%	22.1%
12 to 3	Rainham	Brentwood	63.2	73.6	51.6	59.2	55.2	64.4	-4.0	-18.3	12.8	-6.4%	-24.9%	24.7%
12 to 4	Rainham	Basildon	66.9	82.3	48.8	54.7	52.5	62.5	-12.3	-29.8	13.7	-18.3%	-36.2%	28.1%
12 to 5	Rainham	Tilbury Port	58.7	71.6	49.2	50.2	46.1	65.4	-8.4	-25.5	16.3	-14.4%	-35.7%	33.1%
12 to 6	Rainham	DP World	62.5	75.8	49.4	50.2	46.0	65.4	-12.3	-29.8	16.0	-19.6%	-39.3%	32.3%

## **D.8 LTAM 2045 High Growth – Outputs to Economic Assessment**

D.8.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2045 high growth forecast.

### **Matrix Total Comparison**

D.8.2 Table D.155 and Table D.156 show that the VDMs have converged to the desired criteria.

D.8.3 Table D.157 and Table D.158 provide a comparison of the input reference matrices with the VDM output matrices. The SATURN format comparisons are provided for all movements and relevant movements.

**Table D.155 Convergence and Stability Statistics (High 2045 DM)**

Iteration	% GAP		Cost stability				Flow stability				Totals
	Full Model	Subset Area	RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%	Trips*
1	1	12.68%	20.56%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%
2	2	5.95%	8.03%	0.019	1.089	1.970	86.78%	0.138	0.038	5.347	27.75%
3	3	2.91%	3.76%	0.004	0.190	0.345	99.97%	0.054	0.018	2.672	57.88%
4	4	1.44%	1.83%	0.001	0.050	0.096	100.00%	0.026	0.009	1.337	86.82%
5	5	0.72%	0.91%	0.000	0.023	0.056	100.00%	0.013	0.005	0.669	98.22%
6	6	0.36%	0.47%	0.000	0.017	0.044	100.00%	0.006	0.002	0.334	99.65%
7	7	0.18%	0.26%	0.000	0.020	0.056	99.99%	0.003	0.001	0.169	99.91%
8	8	0.09%	0.16%	0.000	0.018	0.055	99.99%	0.002	0.001	0.084	99.99%
9	9	0.06%	0.12%	0.000	0.020	0.058	100.00%	0.001	0.000	0.042	99.99%
10	10	0.03%	0.10%	0.000	0.018	0.053	100.00%	0.001	0.000	0.034	100.00%

\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report

**Table D.156 Convergence and Stability Statistics (High 2045 DS)**

Iteration	% GAP		Cost stability				Flow stability				Totals
	Full Model Rel	Subset Area Rel	RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%	Trips*
1	12.67%	20.58%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%	97,070,888
2	5.97%	8.22%	0.012	0.644	1.266	94.75%	0.155	0.038	5.348	29.20%	97,575,485
3	2.92%	3.84%	0.003	0.122	0.218	99.97%	0.057	0.018	2.673	57.14%	97,830,803
4	1.45%	1.86%	0.001	0.036	0.071	100.00%	0.027	0.009	1.336	85.56%	97,958,894
5	0.72%	0.93%	0.000	0.020	0.055	99.99%	0.013	0.005	0.671	98.30%	98,022,868
6	0.36%	0.49%	0.000	0.017	0.059	99.99%	0.007	0.002	0.335	99.66%	98,054,839
7	0.19%	0.28%	0.000	0.018	0.060	99.99%	0.003	0.001	0.167	99.91%	98,070,868
8	0.10%	0.16%	0.000	0.015	0.046	100.00%	0.002	0.001	0.086	99.99%	98,078,929
9	0.05%	0.11%	0.000	0.013	0.046	100.00%	0.001	0.000	0.045	100.00%	98,082,870
10	0.03%	0.09%	0.000	0.013	0.045	100.00%	0.001	0.000	0.029	100.00%	98,084,846

*\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report*

**Table D.157 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices  
(High 2045 Reference DM and DS Highway Trips in PCUs)**

Segment	Matrix Type	Time Period	Reference Matrix (High 2045)	VDM Output Matrix (High 2045 DM)			VDM Output Matrix (High 2045 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
HBEB	24Hr PA	N/A	3,491,802	3,494,539	2,736	0.1%	3,494,590	2,787	0.1%
HBW L	24Hr PA	N/A	3,009,952	3,012,293	2,341	0.1%	3,012,315	2,364	0.1%
HBW M	24Hr PA	N/A	5,315,853	5,314,147	-1,707	0.0%	5,314,236	-1,617	0.0%
HBW H	24Hr PA	N/A	4,157,969	4,147,899	-10,071	-0.2%	4,148,026	-9,943	-0.2%
HBO L	24Hr PA	N/A	8,799,443	9,040,945	241,503	2.7%	9,041,269	241,827	2.7%
HBO M	24Hr PA	N/A	7,897,903	8,005,029	107,126	1.4%	8,005,304	107,401	1.4%
HBO H	24Hr PA	N/A	5,685,572	5,718,154	32,583	0.6%	5,718,391	32,819	0.6%
NHBE B	By Time Period OD	AM	117,501	116,914	-587	-0.5%	116,982	-519	-0.4%
		IP	152,191	151,921	-270	-0.2%	151,929	-262	-0.2%
		PM	169,681	167,119	-2,562	-1.5%	167,128	-2,553	-1.5%
		OP	42,860	43,575	715	1.7%	43,559	699	1.6%
NHBO L	By Time Period OD	AM	172,697	177,049	4,352	2.5%	177,158	4,460	2.6%
		IP	458,143	469,776	11,633	2.5%	469,774	11,630	2.5%
		PM	361,826	367,003	5,178	1.4%	367,073	5,247	1.5%
		OP	100,805	105,229	4,424	4.4%	105,207	4,402	4.4%

Segment	Matrix Type	Time Period	Reference Matrix (High 2045)	VDM Output Matrix (High 2045 DM)			VDM Output Matrix (High 2045 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
NHBO M	By Time Period OD	AM	183,715	185,074	1,359	0.7%	185,162	1,447	0.8%
		IP	366,383	371,281	4,898	1.3%	371,324	4,941	1.3%
		PM	363,775	364,060	285	0.1%	364,084	309	0.1%
		OP	90,157	92,789	2,632	2.9%	92,760	2,603	2.9%
NHBO H	By Time Period OD	AM	147,986	147,544	-442	-0.3%	147,596	-390	-0.3%
		IP	250,833	252,112	1,280	0.5%	252,133	1,301	0.5%
		PM	281,868	279,339	-2,529	-0.9%	279,448	-2,419	-0.9%
		OP	66,205	67,858	1,653	2.5%	67,825	1,620	2.4%
LGV	By Time Period OD	AM	1,150,004	1,150,004	0	0.0%	1,150,004	0	0.0%
		IP	993,117	993,117	0	0.0%	993,117	0	0.0%
		PM	830,022	830,022	0	0.0%	830,022	0	0.0%
		OP	400,375	400,375	0	0.0%	400,375	0	0.0%
HGV	By Time Period OD	AM	160,361	160,361	0	0.0%	160,361	0	0.0%
		IP	180,087	180,087	0	0.0%	180,087	0	0.0%
		PM	103,894	103,894	0	0.0%	103,894	0	0.0%
		OP	71,462	71,462	0	0.0%	71,462	0	0.0%

Segment	Matrix Type	Time Period	Reference Matrix (High 2045)	VDM Output Matrix (High 2045 DM)			VDM Output Matrix (High 2045 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Port Trips EB	By Time Period OD	AM	5,559	5,559	0	0.0%	5,559	0	0.0%
		IP	3,877	3,877	0	0.0%	3,877	0	0.0%
		PM	4,855	4,855	0	0.0%	4,855	0	0.0%
		OP	1,505	1,505	0	0.0%	1,505	0	0.0%
Port Trips O LI	By Time Period OD	AM	3,240	3,240	0	0.0%	3,240	0	0.0%
		IP	3,984	3,984	0	0.0%	3,984	0	0.0%
		PM	3,962	3,962	0	0.0%	3,962	0	0.0%
		OP	1,295	1,295	0	0.0%	1,295	0	0.0%
Port Trips O MI	By Time Period OD	AM	3,778	3,778	0	0.0%	3,778	0	0.0%
		IP	4,207	4,207	0	0.0%	4,207	0	0.0%
		PM	4,646	4,646	0	0.0%	4,646	0	0.0%
		OP	1,436	1,436	0	0.0%	1,436	0	0.0%
Port Trips O HI	By Time Period OD	AM	5,361	5,361	0	0.0%	5,361	0	0.0%
		IP	4,477	4,477	0	0.0%	4,477	0	0.0%
		PM	5,935	5,935	0	0.0%	5,935	0	0.0%
		OP	1,717	1,717	0	0.0%	1,717	0	0.0%



**Table D.158 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices  
(High 2045 Reference DM and DS Hourly PCUs)**

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (High 2045)	VDM Output Matrix (High 2045 DM)			VDM Output Matrix (High 2045 DS)			Reference Matrix (High 2045)	VDM Output Matrix (High 2045 DM)			VDM Output Matrix (High 2045 DS)		
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Employers Business	AM	606,259	605,730	-529	-0.1%	605,860	-399	-0.1%	50,731	49,374	-1,357	-2.7%	49,513	-1,219	-2.4%
	IP	528,430	528,121	-309	-0.1%	528,132	-299	-0.1%	35,117	34,824	-294	-0.8%	34,843	-274	-0.8%
	PM	728,551	723,782	-4,770	-0.7%	723,836	-4,715	-0.6%	51,294	49,183	-2,111	-4.1%	49,253	-2,041	-4.0%
	OP	208,548	209,963	1,414	0.7%	209,935	1,386	0.7%	14,102	15,310	1,208	8.6%	15,290	1,189	8.4%
Car Commute Low Income	AM	556,657	552,257	-4,400	-0.8%	552,226	-4,431	-0.8%	40,880	40,853	-27	-0.1%	40,815	-65	-0.2%
	IP	253,663	255,250	1,588	0.6%	255,273	1,610	0.6%	23,118	23,484	365	1.6%	23,506	387	1.7%
	PM	637,287	635,614	-1,673	-0.3%	635,629	-1,658	-0.3%	42,911	42,813	-99	-0.2%	42,830	-81	-0.2%
	OP	101,559	102,449	889	0.9%	102,449	889	0.9%	8,601	8,992	391	4.5%	8,992	391	4.5%
Car Commute Medium Income	AM	1,122,170	1,116,611	-5,559	-0.5%	1,116,736	-5,434	-0.5%	86,239	85,124	-1,115	-1.3%	85,248	-991	-1.1%
	IP	389,115	390,243	1,128	0.3%	390,236	1,121	0.3%	35,445	35,542	97	0.3%	35,535	90	0.3%
	PM	1,220,057	1,217,458	-2,599	-0.2%	1,217,509	-2,549	-0.2%	85,095	83,677	-1,417	-1.7%	83,730	-1,365	-1.6%
	OP	155,678	156,544	867	0.6%	156,530	852	0.5%	13,175	13,613	438	3.3%	13,599	423	3.2%

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (High 2045)	VDM Output Matrix (High 2045 DM)		VDM Output Matrix (High 2045 DS)			Reference Matrix (High 2045)	VDM Output Matrix (High 2045 DM)		VDM Output Matrix (High 2045 DS)				
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Commute High Income	AM	953,424	949,637	-3,787	-0.4%	949,567	-3,858	-0.4%	82,462	80,427	-2,035	-2.5%	80,355	-2,106	-2.6%
	IP	277,198	276,766	-433	-0.2%	276,775	-423	-0.2%	30,134	29,819	-315	-1.0%	29,831	-303	-1.0%
	PM	987,068	983,023	-4,046	-0.4%	983,237	-3,831	-0.4%	83,350	80,557	-2,793	-3.4%	80,776	-2,574	-3.1%
	OP	110,831	111,034	203	0.2%	111,026	195	0.2%	11,344	11,564	220	1.9%	11,557	213	1.9%
Car Other Low Income	AM	935,135	960,035	24,900	2.7%	960,317	25,182	2.7%	99,560	98,997	-563	-0.6%	99,331	-229	-0.2%
	IP	1,657,301	1,698,601	41,300	2.5%	1,698,568	41,268	2.5%	138,238	141,043	2,805	2.0%	141,077	2,839	2.1%
	PM	1,621,708	1,654,456	32,748	2.0%	1,654,677	32,969	2.0%	148,207	144,822	-3,385	-2.3%	145,119	-3,088	-2.1%
	OP	518,555	537,260	18,705	3.6%	537,194	18,639	3.6%	44,470	49,689	5,219	11.7%	49,647	5,177	11.6%
Car Other Medium Income	AM	998,300	1,007,888	9,588	1.0%	1,008,064	9,765	1.0%	110,181	106,329	-3,852	-3.5%	106,559	-3,622	-3.3%
	IP	1,325,917	1,342,623	16,706	1.3%	1,342,717	16,800	1.3%	128,537	128,382	-155	-0.1%	128,539	3	0.0%
	PM	1,634,669	1,644,804	10,135	0.6%	1,644,895	10,226	0.6%	165,065	157,942	-7,122	-4.3%	158,118	-6,947	-4.2%
	OP	464,185	474,476	10,291	2.2%	474,410	10,225	2.2%	44,944	48,700	3,756	8.4%	48,655	3,711	8.3%
Car Other High Income	AM	801,479	801,420	-59	0.0%	801,534	55	0.0%	104,620	98,978	-5,641	-5.4%	99,128	-5,491	-5.2%
	IP	894,625	898,916	4,291	0.5%	898,940	4,315	0.5%	105,025	103,209	-1,817	-1.7%	103,278	-1,747	-1.7%
	PM	1,245,230	1,241,913	-3,317	-0.3%	1,242,261	-2,969	-0.2%	148,187	139,324	-8,863	-6.0%	139,742	-8,445	-5.7%
	OP	335,902	341,423	5,521	1.6%	341,339	5,437	1.6%	39,270	41,956	2,686	6.8%	41,911	2,641	6.7%

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (High 2045)	VDM Output Matrix (High 2045 DM)		VDM Output Matrix (High 2045 DS)			Reference Matrix (High 2045)	VDM Output Matrix (High 2045 DM)		VDM Output Matrix (High 2045 DS)				
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Total	AM	5,973,423	5,993,578	20,154	0.3%	5,994,305	20,882	0.3%	574,673	560,082	-14,591	-2.5%	560,950	-13,723	-2.4%
	IP	5,326,249	5,390,521	64,271	1.2%	5,390,640	64,391	1.2%	495,614	496,302	688	0.1%	496,609	995	0.2%
	PM	8,074,571	8,101,049	26,479	0.3%	8,102,043	27,473	0.3%	724,109	698,319	-25,790	-3.6%	699,569	-24,540	-3.4%
	OP	1,895,259	1,933,149	37,890	2.0%	1,932,882	37,623	2.0%	175,907	189,825	13,918	7.9%	189,650	13,744	7.8%
LGV	AM	1,150,004	1,150,004	0	0.0%	1,150,004	0	0.0%	142,899	142,899	0	0.0%	142,899	0	0.0%
	IP	993,117	993,117	0	0.0%	993,117	0	0.0%	107,895	107,895	0	0.0%	107,895	0	0.0%
	PM	830,022	830,022	0	0.0%	830,022	0	0.0%	110,179	110,179	0	0.0%	110,179	0	0.0%
	OP	400,375	400,375	0	0.0%	400,375	0	0.0%	42,891	42,891	0	0.0%	42,891	0	0.0%
HGV	AM	160,361	160,361	0	0.0%	160,361	0	0.0%	65,695	65,695	0	0.0%	65,695	0	0.0%
	IP	180,087	180,087	0	0.0%	180,087	0	0.0%	72,194	72,194	0	0.0%	72,194	0	0.0%
	PM	103,894	103,894	0	0.0%	103,894	0	0.0%	41,434	41,434	0	0.0%	41,434	0	0.0%
	OP	71,462	71,462	0	0.0%	71,462	0	0.0%	28,313	28,313	0	0.0%	28,313	0	0.0%

## Highway Assignment Model (HAM) Convergence Statistics

D.8.4 Table D.159 to Table D.161 provide the highway assignment model convergence statistics for the 2045 high growth DM forecasts. Table D.162 to Table D.164 provide the highway assignment model convergence statistics for the 2045 high growth DS forecasts.

**Table D.159 HAM Convergence Statistics – 2045 High Growth DM AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
89	0.0046	0.0084	98.5	99.3
90	0.0041	0.0080	98.8	99.3
91	0.0052	0.0076	98.8	99.2
92	0.0047	0.0080	98.8	99.2

**Table D.160 HAM Convergence Statistics – 2045 High Growth DM Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
91	0.0044	0.0044	98.6	99.5
92	0.0032	0.0038	98.6	99.4
93	0.0028	0.0036	98.8	99.5
94	0.0032	0.0032	98.8	99.5

**Table D.161 HAM Convergence Statistics – 2045 High Growth DM PM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
85	0.0049	0.0071	98.7	98.9
86	0.0055	0.0059	98.6	99.0
87	0.0048	0.0072	98.8	99.1
88	0.0057	0.0074	98.7	99.1

**Table D.162 HAM Convergence Statistics – 2045 High Growth DS AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
81	0.0042	0.0066	98.6	99.0
82	0.0045	0.0083	98.6	99.1
83	0.0045	0.0077	98.7	99.3
84	0.0087	0.0062	98.7	99.3

**Table D.163 HAM Convergence Statistics – 2045 High Growth DS Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
102	0.0035	0.0033	98.8	99.4
103	0.0024	0.0037	98.8	99.5
104	0.0026	0.0059	98.8	99.4
105	0.0073	0.0091	98.5	99.2

**Table D.164 HAM Convergence Statistics – 2045 High Growth DS PM Peak**

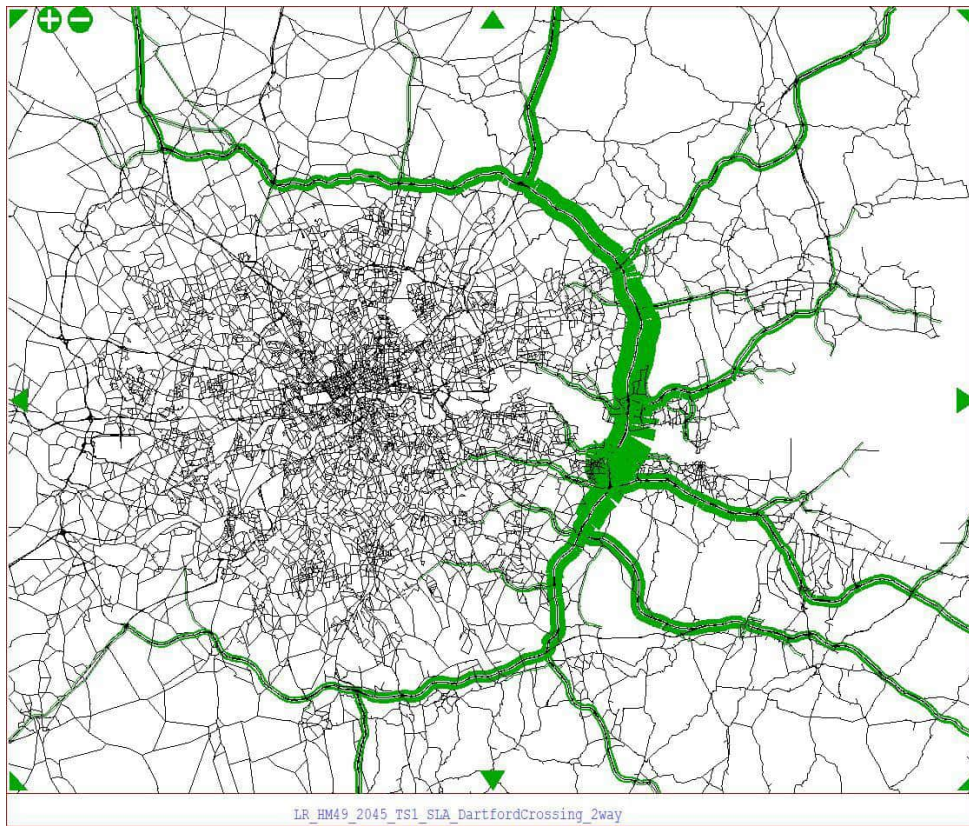
Iteration	Delta (%)	%GAP	%Flows	%Delays
85	0.0047	0.0068	98.8	99.0
86	0.0049	0.0079	98.7	98.9
87	0.0061	0.0066	98.6	99.0
88	0.0050	0.0056	98.7	99.0

D.8.5 These tables demonstrate that the LTAM has achieved the TAG convergence targets in all time periods for this scenario and year.

### Movement Patters Using the Crossings

D.8.6 Plate D.73 to Plate D.81 provide select link analysis of movements using the Dartford and Lower Thames Crossing for the Do Minimum and Do Something scenarios for each of the model time periods. These diagrams show the pattern of movements using each of the crossings in each of the time periods. Table D.165 to Table D.167 provide a summary of the main corridors using each of the crossings and a comparison between the DM and DS scenarios for each time period.

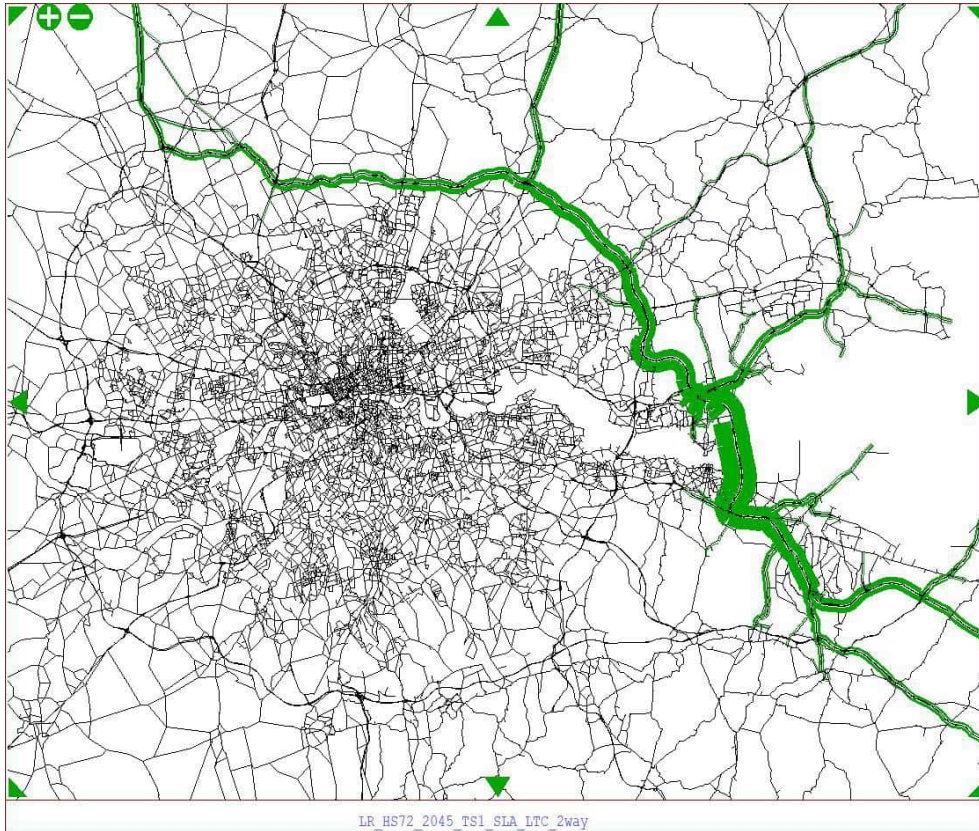
### Plate D.73 Select Link Analysis – Dartford Crossing DM 2045 High AM Peak



### Plate D.74 Select Link Analysis – Dartford Crossing DS 2045 High AM Peak



**Plate D.75 Select Link Analysis – Lower Thames Crossing DS 2045 High AM Peak**



**Table D.165 Select Link Analysis – Summary of Primary Corridors of Movement  
2045 High AM Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,572	17%	3,769	25%	1198	47%
	Local (Outside M25)	2,065	13%	2,111	14%	46	2%
	M25 South (J2-3)	7,598	49%	7,973	53%	375	5%
	A2/M2 to/from Kent	3,247	21%	1,287	9%	-1959	-60%
Select Link	Dartford Crossing	<b>15,481</b>	<b>100%</b>	<b>15,140</b>	<b>100%</b>	<b>-341</b>	<b>-2%</b>
North of River	London North	2,084	13%	3,038	20%	954	46%
	Local Traffic	1,573	10%	1,786	12%	213	14%
	M25 North (J30-29)	9,038	58%	7,797	52%	-1240	-14%
	A13 to/from Essex	2,786	18%	2,519	17%	-268	-10%
South of River	Local Traffic	n/a	n/a	918	10%	n/a	n/a
	A2 West of LTC	n/a	n/a	663	7%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	7,591	83%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>9,173</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	868	9%	n/a	n/a
	A13 West of LTC	n/a	n/a	103	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	3,609	39%	n/a	n/a
	M25 North of LTC	n/a	n/a	4,593	50%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link



### Plate D.76 Select Link Analysis – Dartford Crossing DM 2045 High Inter Peak



### Plate D.77 Select Link Analysis – Dartford Crossing DS 2045 High Inter Peak



**Plate D.78 Select Link Analysis – Lower Thames Crossing DS 2045 High Inter Peak**



**Table D.166 Select Link Analysis – Summary of Primary Corridors of Movement  
2045 High Inter Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,398	16%	3,056	23%	658	27%
	Local (Outside M25)	1,682	11%	1,497	11%	-185	-11%
	M25 South (J2-3)	7,319	48%	7,526	56%	207	3%
	A2/M2 to/from Kent	3,712	25%	1,337	10%	-2376	-64%
Select Link	Dartford Crossing	<b>15,112</b>	<b>100%</b>	<b>13,416</b>	<b>100%</b>	<b>-1696</b>	<b>-11%</b>
North of River	London North	1,837	12%	2,475	18%	639	35%
	Local Traffic	1,695	11%	1,801	13%	106	6%
	M25 North (J30-29)	8,383	55%	6,504	48%	-1879	-22%
	A13 to/from Essex	3,197	21%	2,635	20%	-562	-18%
South of River	Local Traffic	n/a	n/a	931	12%	n/a	n/a
	A2 West of LTC	n/a	n/a	530	7%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	6,575	82%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>8,036</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	743	9%	n/a	n/a
	A13 West of LTC	n/a	n/a	102	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	3,183	40%	n/a	n/a
	M25 North of LTC	n/a	n/a	4,009	50%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

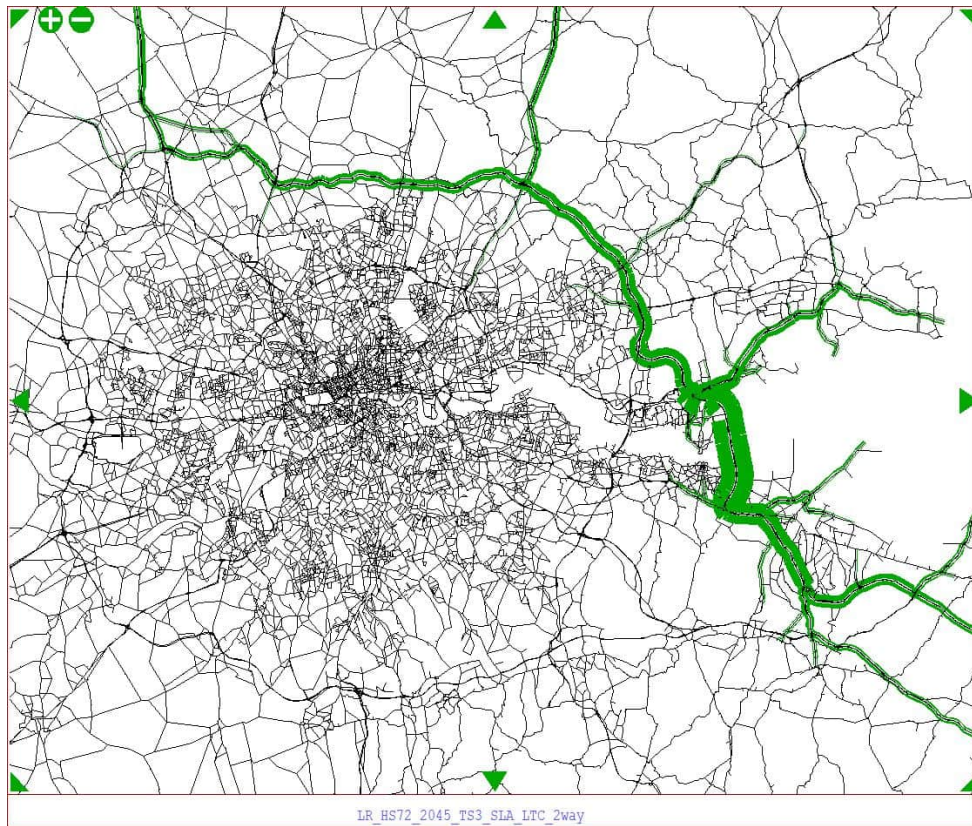
### Plate D.79 Select Link Analysis – Dartford Crossing DM 2045 High PM Peak



### Plate D.80 Select Link Analysis – Dartford Crossing DS 2045 High PM Peak



### Plate D.81 Select Link Analysis – Lower Thames Crossing DS 2045 High PM Peak



**Table D.167 Select Link Analysis – Summary of Primary Corridors of Movement  
2045 High PM Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,505	16%	3,192	23%	687	27%
	Local (Outside M25)	1,608	11%	1,629	12%	21	1%
	M25 South (J2-3)	7,250	48%	7,269	53%	19	0%
	A2/M2 to/from Kent	3,899	26%	1,665	12%	-2234	-57%
Select Link	Dartford Crossing	<b>15,262</b>	<b>100%</b>	<b>13,754</b>	<b>100%</b>	<b>-1507</b>	<b>-10%</b>
North of River	London North	2,362	15%	3,166	23%	804	34%
	Local Traffic	1,616	11%	1,747	13%	131	8%
	M25 North (J30-29)	8,098	53%	6,453	47%	-1645	-20%
	A13 to/from Essex	3,186	21%	2,388	17%	-798	-25%
South of River	Local Traffic	n/a	n/a	1,375	15%	n/a	n/a
	A2 West of LTC	n/a	n/a	776	9%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	6,870	76%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>9,021</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	983	11%	n/a	n/a
	A13 West of LTC	n/a	n/a	68	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	4,136	46%	n/a	n/a
	M25 North of LTC	n/a	n/a	3,835	43%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

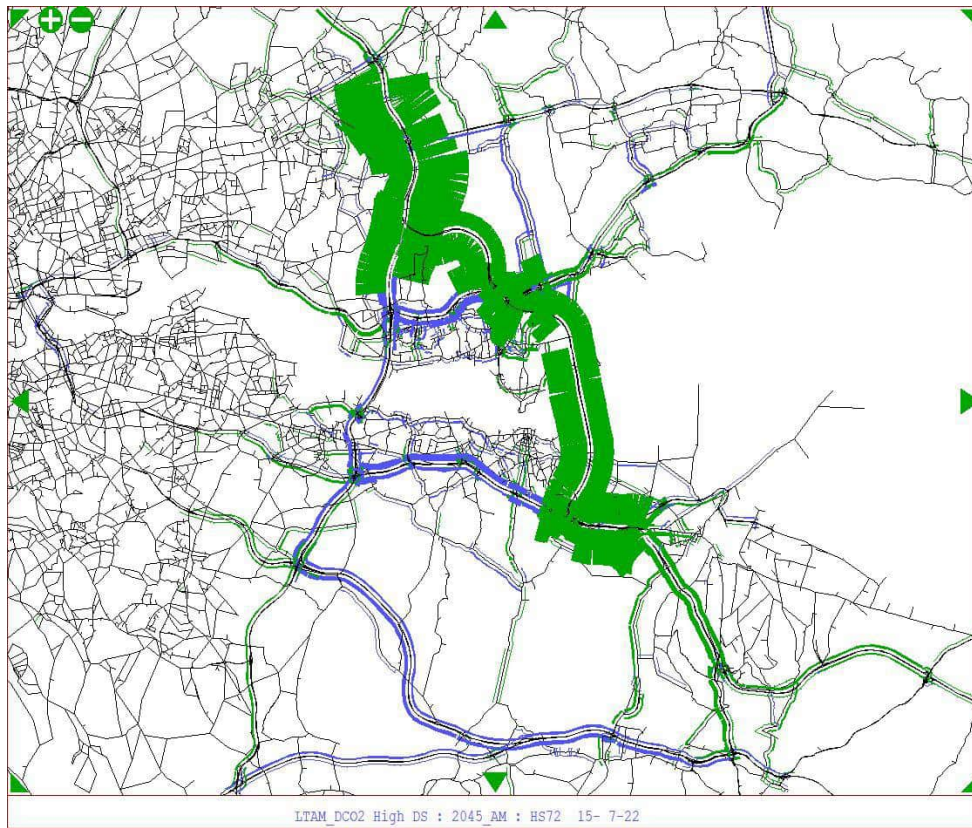
<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

## DM Vs DS Flow Comparisons

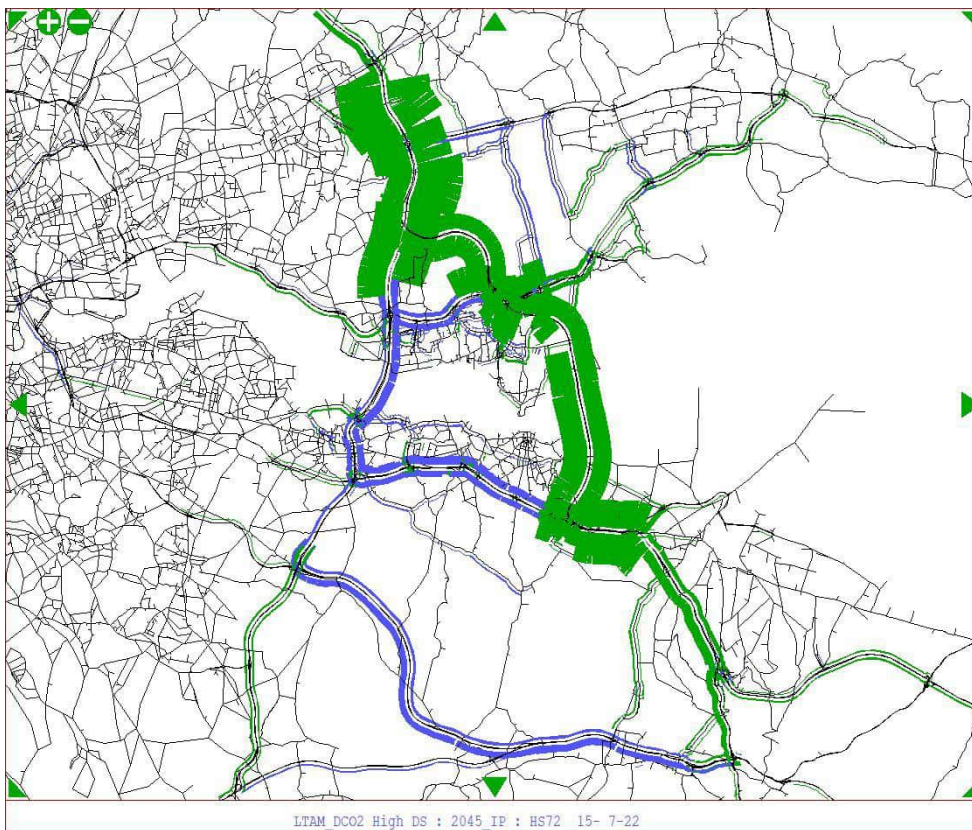
**D.8.7** The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Plate D.82 to Plate D.84 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCUs per hour have been excluded from the colouring.

**D.8.8** Table D.168 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link approaching the TMC. Table D.169 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link after the TMC.

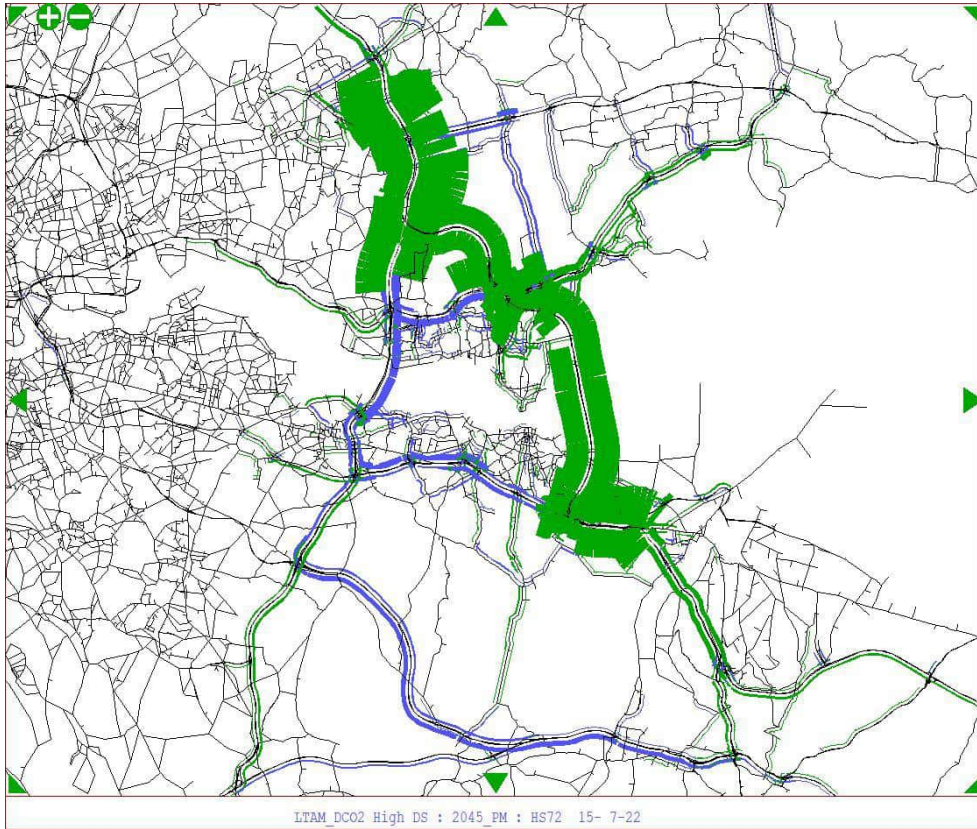
**Plate D.82 Actual Flow Comparison Plot – 2045 High Growth DM Vs DS AM Peak**



**Plate D.83 Actual Flow Comparison Plot – 2045 High Growth DM Vs DS Inter Peak**



**Plate D.84 Actual Flow Comparison Plot – 2045 High Growth DM Vs DS PM Peak**





**Table D.168 Cross River Traffic Flows (NB Flows Approaching TMC) – 2045 High Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,270	3,719	449	14%	1,929	1,907	-21	-1%	3,301	2,874	-428	-13%	8,500	8,500	0	0%	8,500	1.00	1.00
		IP	3,673	3,348	-325	-9%	1,041	880	-161	-16%	3,508	2,516	-992	-28%	8,223	6,744	-1,479	-18%	8,500	0.97	0.79
		PM	4,904	4,414	-490	-10%	1,293	1,015	-278	-22%	2,303	1,573	-729	-32%	8,500	7,002	-1,498	-18%	8,500	1.00	0.82
	LTC	AM	0	2,456	-	-	0	391	-	-	0	1,078	-	-	0	3,925	-	-	6,360	-	0.62
		IP	0	2,105	-	-	0	224	-	-	0	1,126	-	-	0	3,455	-	-	6,360	-	0.54
		PM	0	3,619	-	-	0	372	-	-	0	820	-	-	0	4,812	-	-	6,360	-	0.76
	Total	AM	3,270	6,175	2,905	89%	1,929	2,298	369	19%	3,301	3,952	651	20%	8,500	12,425	3,925	46%	14,860	-	0.84
		IP	3,673	5,453	1,780	48%	1,041	1,104	63	6%	3,508	3,642	134	4%	8,223	10,199	1,977	24%	14,860	-	0.69
		PM	4,904	8,033	3,129	64%	1,293	1,387	94	7%	2,303	2,394	91	4%	8,500	11,814	3,314	39%	14,860	-	0.80
NB	Dartford*	AM	3,624	3,595	-29	-1%	1,650	1,211	-440	-27%	2,547	1,834	-713	-28%	7,821	6,640	-1,181	-15%	6,981	1.12	0.95
		IP	3,126	3,282	156	5%	1,083	832	-251	-23%	3,628	2,556	-1,072	-30%	7,836	6,670	-1,166	-15%	6,890	1.14	0.97
		PM	4,525	4,302	-223	-5%	1,169	980	-189	-16%	2,135	1,516	-620	-29%	7,829	6,798	-1,032	-13%	6,762	1.16	1.01
	LTC	AM	0	3,357	-	-	0	710	-	-	0	1,183	-	-	0	5,249	-	-	6,360	-	0.83
		IP	0	2,600	-	-	0	433	-	-	0	1,547	-	-	0	4,580	-	-	6,360	-	0.72
		PM	0	3,140	-	-	0	295	-	-	0	779	-	-	0	4,214	-	-	6,360	-	0.66
	Total	AM	3,624	6,952	3,328	92%	1,650	1,920	270	16%	2,547	3,017	471	18%	7,821	11,890	4,069	52%	13,341	-	0.89
		IP	3,126	5,882	2,756	88%	1,083	1,266	183	17%	3,628	4,103	476	13%	7,836	11,251	3,414	44%	13,250	-	0.85
		PM	4,525	7,443	2,917	64%	1,169	1,275	106	9%	2,135	2,294	159	7%	7,829	11,012	3,182	41%	13,122	-	0.84

\* Flows are extracted for the link approaching the TMC

**Table D.169 Cross River Traffic Flows (NB Flows After TMC) – 2045 High Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,270	3,719	449	14%	1,929	1,907	-21	-1%	3,301	2,874	-428	-13%	8,500	8,500	0	0%	8,500	1.00	1.00
		IP	3,673	3,348	-325	-9%	1,041	880	-161	-16%	3,508	2,516	-992	-28%	8,223	6,744	-1,479	-18%	8,500	0.97	0.79
		PM	4,904	4,414	-490	-10%	1,293	1,015	-278	-22%	2,303	1,573	-729	-32%	8,500	7,002	-1,498	-18%	8,500	1.00	0.82
	LTC	AM	0	2,456	-	-	0	391	-	-	0	1,078	-	-	0	3,925	-	-	6,360	-	0.62
		IP	0	2,105	-	-	0	224	-	-	0	1,126	-	-	0	3,455	-	-	6,360	-	0.54
		PM	0	3,619	-	-	0	372	-	-	0	820	-	-	0	4,812	-	-	6,360	-	0.76
	Total	AM	3,270	6,175	2,905	89%	1,929	2,298	369	19%	3,301	3,952	651	20%	8,500	12,425	3,925	46%	14,860	-	0.84
		IP	3,673	5,453	1,780	48%	1,041	1,104	63	6%	3,508	3,642	134	4%	8,223	10,199	1,977	24%	14,860	-	0.69
		PM	4,904	8,033	3,129	64%	1,293	1,387	94	7%	2,303	2,394	91	4%	8,500	11,814	3,314	39%	14,860	-	0.80
NB	Dartford*	AM	3,239	3,595	356	11%	1,475	1,211	-264	-18%	2,267	1,834	-433	-19%	6,981	6,640	-341	-5%	6,981	1.00	0.95
		IP	2,749	3,282	533	19%	953	832	-120	-13%	3,188	2,556	-632	-20%	6,890	6,670	-220	-3%	6,890	1.00	0.97
		PM	3,908	4,277	370	9%	1,010	975	-35	-3%	1,844	1,505	-339	-18%	6,762	6,757	-4	0%	6,762	1.00	1.00
	LTC	AM	0	3,357	-	-	0	710	-	-	0	1,183	-	-	0	5,249	-	-	6,360	-	0.83
		IP	0	2,600	-	-	0	433	-	-	0	1,547	-	-	0	4,580	-	-	6,360	-	0.72
		PM	0	3,140	-	-	0	295	-	-	0	779	-	-	0	4,214	-	-	6,360	-	0.66
	Total	AM	3,239	6,952	3,713	115%	1,475	1,920	446	30%	2,267	3,017	750	33%	6,981	11,890	4,909	70%	13,341	-	0.89
		IP	2,749	5,882	3,132	114%	953	1,266	313	33%	3,188	4,103	915	29%	6,890	11,251	4,361	63%	13,250	-	0.85
		PM	3,908	7,418	3,510	90%	1,010	1,270	260	26%	1,844	2,284	440	24%	6,762	10,972	4,210	62%	13,122	-	0.84

\* Flows are extracted for the link after the TMC

D.8.9 The movements considered critical to understanding the impacts of the scheme are the same as those described in Chapter 8 of the main document. Table D.170 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

**Table D.170 Key Corridor Traffic Flows – 2045 High Growth DM Vs DS (Hourly Flows in PCUs)**

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	7,913	9,180	0.86	9,174	9,180	1.00	1,261	16%
		IP	7,348	9,180	0.80	8,638	9,180	0.94	1,290	18%
		PM	7,397	9,180	0.81	8,543	9,180	0.93	1,146	15%
	M25 J28 to M25 J29 (SB)	AM	8,019	9,115	0.88	8,170	9,180	0.89	151	2%
		IP	8,045	9,115	0.88	8,424	9,180	0.92	379	5%
		PM	8,216	9,115	0.90	8,596	9,180	0.94	380	5%
B	M25 J4 to M25 J3 (NB)	AM	5,901	6,850	0.86	6,078	6,850	0.89	176	3%
		IP	6,072	6,850	0.89	6,327	6,850	0.92	255	4%
		PM	6,561	6,850	0.96	6,699	6,850	0.98	139	2%
	M25 J3 to M25 J4 (SB)	AM	6,843	6,850	1.00	6,844	6,850	1.00	1	0%
		IP	5,894	6,850	0.86	6,079	6,850	0.89	185	3%
		PM	6,086	6,850	0.89	6,445	6,850	0.94	360	6%
C	A13 A126 to A1012 (EB)	AM	5,183	6,307	0.82	4,460	6,291	0.71	-722	-14%
		IP	5,393	6,297	0.86	4,739	6,275	0.76	-653	-12%
		PM	5,758	6,268	0.92	5,758	6,235	0.92	0	0%
	A13 A1012 to A126 (WB)	AM	6,174	6,360	0.97	5,513	6,360	0.87	-662	-11%
		IP	5,865	6,360	0.92	4,953	6,360	0.78	-912	-16%
		PM	6,040	6,360	0.95	5,011	6,360	0.79	-1,029	-17%
D	A13 Orsett Cock to Manor Way (EB)	AM	5,109	6,370	0.80	5,705	6,370	0.90	596	12%
		IP	4,572	6,370	0.72	5,370	6,370	0.84	798	17%
		PM	5,200	6,370	0.82	6,055	6,370	0.95	855	16%
	A13 Manor Way to Orsett Cock (WB)	AM	5,438	6,220	0.87	5,859	6,220	0.94	421	8%
		IP	4,732	6,220	0.76	5,424	6,220	0.87	692	15%
		PM	5,134	6,220	0.83	5,868	6,220	0.94	734	14%

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
E	A2 A227 to Gravesend East (EB)	AM	6,694	9,226	0.73	5,745	9,221	0.62	-949	-14%
		IP	7,121	9,184	0.78	5,957	9,175	0.65	-1,164	-16%
		PM	9,081	9,184	0.99	8,835	9,161	0.96	-246	-3%
	A2 Gravesend East to A227 (WB)	AM	7,282	7,312	1.00	6,638	6,993	0.95	-644	-9%
		IP	6,374	7,064	0.90	5,545	6,870	0.81	-828	-13%
		PM	6,348	6,799	0.93	5,867	6,654	0.88	-482	-8%
F	M2 J1 to M2 J2 (EB)	AM	6,078	8,569	0.71	6,927	8,429	0.82	849	14%
		IP	5,377	8,693	0.62	6,167	8,629	0.71	791	15%
		PM	6,799	8,649	0.79	7,991	8,451	0.95	1,191	18%
	M2 J2 to M2 J1 (WB)	AM	6,601	8,832	0.75	7,856	8,568	0.92	1,255	19%
		IP	4,788	8,860	0.54	6,670	8,663	0.77	1,882	39%
		PM	5,824	8,934	0.65	6,780	8,772	0.77	956	16%
G	M20 J3 to M20 J4 (EB)	AM	6,827	9,115	0.75	6,434	9,115	0.71	-393	-6%
		IP	6,839	9,115	0.75	6,433	9,115	0.71	-406	-6%
		PM	8,836	9,115	0.97	8,723	9,115	0.96	-113	-1%
	M20 J4 to M20 J3 (WB)	AM	8,998	9,115	0.99	8,390	9,115	0.92	-608	-7%
		IP	6,703	9,115	0.74	5,524	9,115	0.61	-1,179	-18%
		PM	6,562	9,115	0.72	5,781	9,115	0.63	-781	-12%

## DM Vs DS Journey Time Comparisons

- D.8.10 The same link based and route based journey time comparisons introduced under Chapter 8 of the main document are repeated for this year scenario combination.
- D.8.11 The link based journey time comparisons for this scenario are presented in Table D.171 to Table D.173.
- D.8.12 Table D.174 to Table D.179 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

**Table D.171 Link Based Journey Time Scenario Comparison (2045 High Growth DM Vs DS) AM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance	Time	Av Speed
M25 clockwise	A to B	M25 J26	M25 J29	23.5	18.3	77.3	23.5	18.8	74.8	0.0	0.6	-2.5	-0.1%	3.2%	-3.2%
	B to D	M25 J29	M25 J2	18.8	22.9	49.3	18.9	17.7	64.1	0.1	-5.2	14.8	0.3%	-22.8%	29.9%
	D to F	M25 J2	M25 J7	37.7	32.9	68.8	37.7	35.2	64.3	0.0	2.3	-4.5	0.0%	7.0%	-6.6%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	27.9	81.7	38.0	28.2	80.9	0.0	0.3	-0.8	0.0%	1.0%	-1.0%
	D to B	M25 J2	M25 J29	18.7	22.7	49.4	18.8	15.7	71.9	0.1	-7.0	22.6	0.6%	-31.0%	45.8%
	B to A	M25 J29	M25 J26	23.2	18.4	75.7	23.1	21.9	63.4	-0.1	3.5	-12.3	-0.3%	19.1%	-16.3%
A13 EB	C to G	M25 J30	A1089	5.2	5.4	58.0	5.3	4.4	71.9	0.0	-1.0	13.9	0.9%	-18.6%	23.9%
	G to H	A1089	A130	15.7	13.6	69.3	15.7	14.8	63.7	-0.1	1.1	-5.6	-0.4%	8.3%	-8.0%
A13 WB	H to G	A130	A1089	15.3	15.9	57.6	15.2	18.6	48.8	-0.1	2.8	-8.8	-0.7%	17.3%	-15.3%
	G to C	A1089	M25 J30	5.5	10.0	32.8	5.6	6.1	54.7	0.1	-3.9	21.9	1.6%	-39.0%	66.7%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	9.6	95.3	15.3	9.1	100.8	0.1	-0.5	5.5	0.5%	-5.0%	5.8%
	I to J	M2 J1	M2 J4	14.7	8.8	100.3	14.7	9.4	93.4	0.0	0.7	-6.9	0.0%	7.4%	-6.9%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	9.7	94.3	15.1	10.8	83.5	-0.1	1.2	-10.9	-0.7%	12.3%	-11.5%
	I to D	M2 J1	M25 J2	14.8	21.7	40.8	14.8	14.6	61.2	0.1	-7.1	20.3	0.6%	-32.9%	49.9%
M20 EB	E to K	M25 J3	M20 J8	35.3	21.2	99.9	35.3	20.9	101.4	0.0	-0.3	1.4	0.0%	-1.4%	1.4%
M20 WB	K to E	M20 J8	M25 J3	35.3	28.2	75.3	35.3	25.6	82.9	0.0	-2.6	7.7	0.0%	-9.2%	10.2%

**Table D.172 Link Based Journey Time Scenario Comparison (2045 High Growth DM Vs DS) Inter Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance	Time	Av Speed
M25 clockwise	A to B	M25 J26	M25 J29	23.5	18.3	77.0	23.5	19.3	73.0	0.0	1.0	-4.0	-0.1%	5.4%	-5.2%
	B to D	M25 J29	M25 J2	18.8	16.1	69.9	18.9	13.3	85.1	0.1	-2.8	15.1	0.3%	-17.6%	21.6%
	D to F	M25 J2	M25 J7	37.7	28.1	80.7	37.7	28.4	79.7	0.0	0.3	-0.9	0.0%	1.2%	-1.2%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	28.5	79.9	38.0	29.9	76.2	0.0	1.4	-3.7	0.0%	4.9%	-4.7%
	D to B	M25 J2	M25 J29	18.7	23.0	48.8	18.8	14.6	77.4	0.1	-8.4	28.6	0.6%	-36.6%	58.7%
	B to A	M25 J29	M25 J26	23.2	15.6	89.2	23.1	17.9	77.4	-0.1	2.3	-11.8	-0.3%	15.0%	-13.3%
A13 EB	C to G	M25 J30	A1089	5.2	5.9	53.0	5.3	4.8	65.9	0.0	-1.1	13.0	0.9%	-18.9%	24.5%
	G to H	A1089	A130	15.7	12.3	76.8	15.7	13.5	69.8	-0.1	1.2	-7.0	-0.4%	9.6%	-9.1%
A13 WB	H to G	A130	A1089	15.3	12.6	72.9	15.2	14.1	64.7	-0.1	1.5	-8.1	-0.7%	11.8%	-11.2%
	G to C	A1089	M25 J30	5.5	7.3	45.1	5.6	5.3	63.5	0.1	-2.0	18.4	1.6%	-27.9%	40.8%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	10.0	91.6	15.3	9.1	101.0	0.1	-0.9	9.4	0.5%	-8.8%	10.2%
	I to J	M2 J1	M2 J4	14.7	8.6	102.6	14.7	8.8	100.1	0.0	0.2	-2.5	0.0%	2.5%	-2.5%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	8.7	104.8	15.1	9.1	99.4	-0.1	0.4	-5.5	-0.7%	4.8%	-5.2%
	I to D	M2 J1	M25 J2	14.8	13.1	67.9	14.8	9.9	90.1	0.1	-3.2	22.3	0.6%	-24.3%	32.8%
M20 EB	E to K	M25 J3	M20 J8	35.3	21.0	101.1	35.3	20.7	102.4	0.0	-0.3	1.3	0.0%	-1.3%	1.3%
M20 WB	K to E	M20 J8	M25 J3	35.3	21.0	101.2	35.3	20.4	104.0	0.0	-0.6	2.8	0.0%	-2.7%	2.8%

**Table D.173 Link Based Journey Time Scenario Comparison (2045 High Growth DM Vs DS) PM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance	Time	Av Speed
M25 clockwise	A to B	M25 J26	M25 J29	23.5	19.9	71.0	23.5	20.7	68.1	0.0	0.8	-2.9	-0.1%	4.2%	-4.1%
	B to D	M25 J29	M25 J2	18.8	18.5	60.9	18.9	14.2	79.7	0.1	-4.3	18.7	0.3%	-23.3%	30.8%
	D to F	M25 J2	M25 J7	37.7	25.7	88.1	37.7	26.7	84.8	0.0	1.0	-3.3	0.0%	3.9%	-3.7%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	33.9	67.2	38.0	34.7	65.7	0.0	0.8	-1.5	0.0%	2.3%	-2.3%
	D to B	M25 J2	M25 J29	18.7	20.8	54.0	18.8	15.0	75.1	0.1	-5.8	21.2	0.6%	-27.7%	39.3%
	B to A	M25 J29	M25 J26	23.2	15.3	91.1	23.1	17.0	81.7	-0.1	1.7	-9.4	-0.3%	11.1%	-10.3%
A13 EB	C to G	M25 J30	A1089	5.2	9.4	33.2	5.3	6.1	52.1	0.0	-3.4	18.9	0.9%	-35.8%	57.1%
	G to H	A1089	A130	15.7	13.6	69.5	15.7	15.6	60.2	-0.1	2.0	-9.3	-0.4%	15.0%	-13.4%
A13 WB	H to G	A130	A1089	15.3	13.2	69.5	15.2	15.1	60.4	-0.1	1.9	-9.2	-0.7%	14.4%	-13.2%
	G to C	A1089	M25 J30	5.5	8.3	39.8	5.6	5.5	61.2	0.1	-2.8	21.5	1.6%	-34.0%	54.0%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	15.7	58.2	15.3	12.0	77.0	0.1	-3.8	18.8	0.5%	-24.0%	32.3%
	I to J	M2 J1	M2 J4	14.7	10.0	87.8	14.7	13.4	65.6	0.0	3.4	-22.1	0.0%	33.7%	-25.2%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	9.1	100.0	15.1	9.4	95.9	-0.1	0.3	-4.2	-0.7%	3.7%	-4.2%
	I to D	M2 J1	M25 J2	14.8	16.5	53.8	14.8	12.0	74.1	0.1	-4.5	20.4	0.6%	-27.0%	37.8%
M20 EB	E to K	M25 J3	M20 J8	35.3	27.7	76.4	35.3	26.8	79.1	0.0	-0.9	2.6	0.0%	-3.3%	3.4%
M20 WB	K to E	M20 J8	M25 J3	35.3	21.3	99.3	35.3	20.8	101.9	0.0	-0.5	2.5	0.0%	-2.5%	2.6%

**Table D.174 Route Based Journey Time Comparison North to South Movements (2045 High Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
1 to 7	Cheshunt	Bexley	61.8	70.5	52.6	61.9	68.6	54.2	0.1	-1.9	1.5	0.1%	-2.7%	2.9%
1 to 8	Cheshunt	Godstone	91.5	91.1	60.3	91.6	88.8	61.9	0.0	-2.3	1.6	0.0%	-2.5%	2.6%
1 to 9	Cheshunt	Southfleet	62.1	64.9	57.4	62.2	60.1	62.1	0.1	-4.8	4.7	0.2%	-7.5%	8.3%
1 to 10	Cheshunt	Maidstone	88.2	83.3	63.5	83.3	79.3	63.0	-4.9	-4.0	-0.5	-5.5%	-4.8%	-0.8%
1 to 11	Cheshunt	Rochester	74.5	83.6	53.4	70.4	70.8	59.6	-4.1	-12.8	6.2	-5.4%	-15.3%	11.6%
1 to 12	Cheshunt	Rainham	91.4	89.3	61.4	87.3	77.0	68.0	-4.1	-12.3	6.6	-4.5%	-13.7%	10.7%
2 to 7	Romford	Bexley	32.4	60.4	32.2	36.0	54.6	39.5	3.6	-5.7	7.3	11.1%	-9.5%	22.8%
2 to 8	Romford	Godstone	62.1	81.0	46.0	65.6	74.8	52.6	3.6	-6.1	6.6	5.8%	-7.6%	14.4%
2 to 9	Romford	Southfleet	32.6	54.8	35.7	36.3	46.1	47.2	3.7	-8.7	11.5	11.2%	-15.8%	32.1%
2 to 10	Romford	Maidstone	58.7	73.2	48.2	57.4	65.3	52.7	-1.3	-7.8	4.6	-2.3%	-10.7%	9.4%
2 to 11	Romford	Rochester	45.0	73.5	36.8	44.5	56.9	47.0	-0.5	-16.6	10.2	-1.1%	-22.6%	27.7%
2 to 12	Romford	Rainham	62.0	79.2	47.0	61.4	63.1	58.4	-0.5	-16.1	11.5	-0.9%	-20.3%	24.4%
3 to 7	Brentwood	Bexley	33.0	49.9	39.7	32.9	45.8	43.2	-0.1	-4.0	3.4	-0.2%	-8.1%	8.7%
3 to 8	Brentwood	Godstone	62.7	70.5	53.4	62.6	66.0	56.9	-0.1	-4.4	3.5	-0.1%	-6.3%	6.6%
3 to 9	Brentwood	Southfleet	33.2	44.3	45.0	33.2	37.3	53.5	0.0	-7.0	8.4	0.0%	-15.8%	18.7%
3 to 10	Brentwood	Maidstone	59.3	62.6	56.8	54.3	56.5	57.7	-5.0	-6.2	0.9	-8.5%	-9.8%	1.5%
3 to 11	Brentwood	Rochester	45.6	63.0	43.5	41.5	48.1	51.8	-4.2	-14.9	8.3	-9.2%	-23.7%	19.1%



Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
3 to 12	Brentwood	Rainham	62.6	68.7	54.7	58.4	54.3	64.6	-4.2	-14.4	9.9	-6.7%	-21.0%	18.0%
4 to 7	Basildon	Bexley	39.7	63.3	37.7	39.7	58.6	40.6	0.0	-4.6	2.9	-0.1%	-7.3%	7.8%
4 to 8	Basildon	Godstone	69.4	83.9	49.6	69.3	78.8	52.8	-0.1	-5.0	3.1	-0.1%	-6.0%	6.3%
4 to 9	Basildon	Southfleet	40.0	57.7	41.6	35.0	44.1	47.6	-5.0	-13.6	6.1	-12.4%	-23.6%	14.6%
4 to 10	Basildon	Maidstone	66.0	76.1	52.1	49.2	63.1	46.8	-16.8	-12.9	-5.3	-25.4%	-17.0%	-10.2%
4 to 11	Basildon	Rochester	52.4	76.4	41.1	36.7	54.6	40.3	-15.6	-21.8	-0.8	-29.8%	-28.5%	-1.9%
4 to 12	Basildon	Rainham	69.3	82.1	50.7	53.7	60.9	52.9	-15.7	-21.2	2.2	-22.6%	-25.9%	4.4%
5 to 7	Tilbury Port	Bexley	28.3	53.3	31.9	28.4	46.9	36.3	0.0	-6.4	4.4	0.1%	-12.0%	13.9%
5 to 8	Tilbury Port	Godstone	58.0	73.9	47.1	58.0	67.1	51.9	0.0	-6.8	4.8	0.0%	-9.2%	10.2%
5 to 9	Tilbury Port	Southfleet	28.5	47.7	35.9	27.7	31.8	52.3	-0.8	-15.9	16.4	-2.9%	-33.4%	45.7%
5 to 10	Tilbury Port	Maidstone	54.6	66.1	49.6	42.0	50.8	49.5	-12.7	-15.2	-0.1	-23.2%	-23.1%	-0.2%
5 to 11	Tilbury Port	Rochester	41.0	66.4	37.0	29.5	42.4	41.7	-11.5	-24.1	4.7	-28.1%	-36.2%	12.8%
5 to 12	Tilbury Port	Rainham	57.9	72.1	48.2	46.4	48.6	57.3	-11.5	-23.5	9.1	-19.9%	-32.6%	18.9%
6 to 7	DP World	Bexley	32.1	51.1	37.7	32.1	45.5	42.3	0.0	-5.6	4.6	0.1%	-10.9%	12.3%
6 to 8	DP World	Godstone	61.8	71.7	51.7	61.8	65.7	56.4	0.0	-6.0	4.7	0.0%	-8.3%	9.0%
6 to 9	DP World	Southfleet	32.3	45.5	42.7	29.0	27.9	62.5	-3.3	-17.6	19.8	-10.2%	-38.7%	46.5%
6 to 10	DP World	Maidstone	58.4	63.9	54.9	43.3	47.0	55.3	-15.1	-16.9	0.4	-25.9%	-26.5%	0.8%
6 to 11	DP World	Rochester	44.7	64.2	41.8	30.8	38.5	48.0	-14.0	-25.7	6.2	-31.2%	-40.1%	14.8%
6 to 12	DP World	Rainham	61.7	69.9	53.0	47.7	44.7	64.1	-14.0	-25.2	11.1	-22.7%	-36.1%	21.0%

**Table D.175 Route Based Journey Time Comparison North to South Movements (2045 High Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
1 to 7	Cheshunt	Bexley	61.8	56.8	65.4	61.9	55.3	67.2	0.0	-1.5	1.8	0.1%	-2.6%	2.7%
1 to 8	Cheshunt	Godstone	91.5	75.3	72.9	91.6	73.7	74.5	0.0	-1.6	1.6	0.0%	-2.1%	2.2%
1 to 9	Cheshunt	Southfleet	62.2	54.3	68.6	62.2	51.7	72.2	0.0	-2.6	3.5	0.1%	-4.8%	5.1%
1 to 10	Cheshunt	Maidstone	88.2	71.7	73.8	82.9	67.3	73.9	-5.3	-4.4	0.1	-6.0%	-6.1%	0.1%
1 to 11	Cheshunt	Rochester	74.5	68.9	64.9	70.3	61.8	68.3	-4.2	-7.1	3.4	-5.6%	-10.3%	5.2%
1 to 12	Cheshunt	Rainham	91.4	77.6	70.7	87.4	70.6	74.2	-4.1	-7.0	3.5	-4.5%	-9.0%	5.0%
2 to 7	Romford	Bexley	35.6	45.6	46.8	35.6	41.2	51.8	0.0	-4.4	5.0	0.0%	-9.7%	10.7%
2 to 8	Romford	Godstone	65.3	64.2	61.0	65.3	59.7	65.6	0.0	-4.5	4.6	0.0%	-7.0%	7.5%
2 to 9	Romford	Southfleet	35.9	43.2	49.9	35.9	37.6	57.2	0.0	-5.6	7.3	0.0%	-12.9%	14.7%
2 to 10	Romford	Maidstone	61.9	60.5	61.4	56.6	53.2	63.8	-5.3	-7.3	2.4	-8.6%	-12.1%	4.0%
2 to 11	Romford	Rochester	48.2	57.7	50.1	44.0	47.7	55.4	-4.3	-10.0	5.2	-8.8%	-17.4%	10.4%
2 to 12	Romford	Rainham	65.2	66.5	58.8	61.0	56.5	64.8	-4.1	-9.9	5.9	-6.3%	-14.9%	10.1%
3 to 7	Brentwood	Bexley	33.0	37.0	53.5	32.9	34.2	57.8	-0.1	-2.8	4.2	-0.3%	-7.6%	7.9%
3 to 8	Brentwood	Godstone	62.7	55.5	67.8	62.6	52.6	71.4	-0.1	-2.9	3.6	-0.1%	-5.2%	5.3%
3 to 9	Brentwood	Southfleet	33.3	34.5	57.9	33.2	30.6	65.1	-0.1	-3.9	7.3	-0.3%	-11.4%	12.5%
3 to 10	Brentwood	Maidstone	59.3	51.9	68.6	53.9	46.2	70.1	-5.4	-5.7	1.4	-9.1%	-11.0%	2.1%
3 to 11	Brentwood	Rochester	45.7	49.1	55.8	41.3	40.7	61.0	-4.3	-8.4	5.2	-9.5%	-17.2%	9.3%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
3 to 12	Brentwood	Rainham	62.6	57.8	65.0	58.4	49.5	70.8	-4.2	-8.3	5.8	-6.7%	-14.4%	8.9%
4 to 7	Basildon	Bexley	39.7	41.9	56.9	39.6	38.7	61.5	-0.1	-3.2	4.6	-0.2%	-7.6%	8.0%
4 to 8	Basildon	Godstone	69.4	60.4	68.9	69.3	57.1	72.8	-0.1	-3.3	3.9	-0.1%	-5.4%	5.6%
4 to 9	Basildon	Southfleet	40.0	39.5	60.9	33.8	30.9	65.6	-6.3	-8.6	4.7	-15.7%	-21.8%	7.8%
4 to 10	Basildon	Maidstone	66.1	56.8	69.8	48.0	44.7	64.4	-18.1	-12.1	-5.4	-27.4%	-21.3%	-7.8%
4 to 11	Basildon	Rochester	52.4	54.0	58.2	35.4	39.2	54.2	-17.0	-14.8	-4.1	-32.5%	-27.4%	-7.0%
4 to 12	Basildon	Rainham	69.3	62.7	66.3	52.4	48.1	65.5	-16.9	-14.7	-0.8	-24.4%	-23.4%	-1.3%
5 to 7	Tilbury Port	Bexley	28.3	33.2	51.2	28.3	29.2	58.1	0.0	-3.9	6.9	0.0%	-11.9%	13.5%
5 to 8	Tilbury Port	Godstone	58.0	51.7	67.3	58.0	47.7	73.0	0.0	-4.0	5.7	0.0%	-7.8%	8.5%
5 to 9	Tilbury Port	Southfleet	28.6	30.7	55.9	27.7	20.4	81.5	-0.9	-10.3	25.6	-3.2%	-33.6%	45.8%
5 to 10	Tilbury Port	Maidstone	54.6	48.1	68.2	41.9	34.3	73.4	-12.7	-13.8	5.2	-23.3%	-28.7%	7.6%
5 to 11	Tilbury Port	Rochester	41.0	45.3	54.3	29.3	28.7	61.2	-11.6	-16.5	6.9	-28.4%	-36.5%	12.8%
5 to 12	Tilbury Port	Rainham	57.9	54.0	64.3	46.4	37.6	74.0	-11.5	-16.4	9.7	-19.9%	-30.4%	15.1%
6 to 7	DP World	Bexley	32.1	36.7	52.5	32.1	33.2	58.0	0.0	-3.5	5.5	0.0%	-9.6%	10.5%
6 to 8	DP World	Godstone	61.8	55.2	67.1	61.8	51.7	71.8	0.0	-3.6	4.7	0.0%	-6.5%	6.9%
6 to 9	DP World	Southfleet	32.4	34.3	56.7	29.0	22.8	76.4	-3.4	-11.5	19.7	-10.4%	-33.5%	34.6%
6 to 10	DP World	Maidstone	58.4	51.6	67.9	43.2	36.7	70.8	-15.2	-15.0	2.8	-26.0%	-29.0%	4.2%
6 to 11	DP World	Rochester	44.8	48.8	55.0	30.7	31.1	59.1	-14.1	-17.7	4.0	-31.5%	-36.2%	7.3%
6 to 12	DP World	Rainham	61.7	57.5	64.3	47.7	40.0	71.6	-14.0	-17.6	7.2	-22.7%	-30.5%	11.3%

**Table D.176 Route Based Journey Time Comparison North to South Movements (2045 High Growth DM Vs DS) PM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
1 to 7	Cheshunt	Bexley	61.9	66.9	55.5	61.9	64.5	57.6	0.0	-2.4	2.1	0.0%	-3.6%	3.7%
1 to 8	Cheshunt	Godstone	91.5	81.1	67.7	91.5	78.7	69.8	0.0	-2.4	2.0	0.0%	-2.9%	3.0%
1 to 9	Cheshunt	Southfleet	60.8	62.7	58.1	62.2	57.8	64.6	1.4	-4.9	6.4	2.4%	-7.8%	11.1%
1 to 10	Cheshunt	Maidstone	88.2	84.5	62.6	82.9	79.7	62.4	-5.3	-4.8	-0.2	-6.0%	-5.7%	-0.4%
1 to 11	Cheshunt	Rochester	74.7	84.9	52.8	70.6	73.6	57.5	-4.2	-11.2	4.6	-5.6%	-13.2%	8.8%
1 to 12	Cheshunt	Rainham	91.4	101.2	54.2	87.3	90.7	57.8	-4.1	-10.6	3.6	-4.5%	-10.5%	6.7%
2 to 7	Romford	Bexley	38.6	57.5	40.3	36.1	51.9	41.8	-2.5	-5.6	1.5	-6.4%	-9.8%	3.7%
2 to 8	Romford	Godstone	68.3	71.7	57.1	65.8	66.1	59.7	-2.5	-5.6	2.6	-3.6%	-7.8%	4.5%
2 to 9	Romford	Southfleet	37.5	53.3	42.2	36.4	45.2	48.4	-1.1	-8.1	6.2	-2.8%	-15.2%	14.7%
2 to 10	Romford	Maidstone	64.9	75.1	51.9	57.1	67.1	51.1	-7.8	-8.0	-0.8	-12.0%	-10.6%	-1.5%
2 to 11	Romford	Rochester	51.5	75.5	40.9	44.8	61.1	44.0	-6.7	-14.4	3.1	-12.9%	-19.1%	7.6%
2 to 12	Romford	Rainham	68.2	91.9	44.5	61.6	78.1	47.3	-6.6	-13.8	2.8	-9.7%	-15.0%	6.3%
3 to 7	Brentwood	Bexley	33.0	46.4	42.7	32.9	42.0	47.0	-0.1	-4.4	4.3	-0.3%	-9.5%	10.2%
3 to 8	Brentwood	Godstone	62.7	60.6	62.0	62.6	56.3	66.8	-0.1	-4.4	4.7	-0.1%	-7.2%	7.6%
3 to 9	Brentwood	Southfleet	31.9	42.2	45.3	33.2	35.3	56.5	1.3	-6.9	11.1	4.2%	-16.4%	24.6%
3 to 10	Brentwood	Maidstone	59.3	64.0	55.6	53.9	57.2	56.6	-5.4	-6.8	0.9	-9.1%	-10.6%	1.6%
3 to 11	Brentwood	Rochester	45.9	64.4	42.8	41.6	51.2	48.8	-4.3	-13.2	6.0	-9.3%	-20.5%	14.1%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
3 to 12	Brentwood	Rainham	62.6	80.8	46.5	58.4	68.2	51.4	-4.2	-12.6	4.9	-6.7%	-15.6%	10.5%
4 to 7	Basildon	Bexley	36.8	50.6	43.7	39.3	48.6	48.5	2.4	-2.0	4.8	6.6%	-4.0%	11.1%
4 to 8	Basildon	Godstone	66.5	64.8	61.6	69.0	62.8	65.9	2.4	-2.0	4.3	3.7%	-3.0%	6.9%
4 to 9	Basildon	Southfleet	35.7	46.4	46.2	33.8	34.1	59.3	-2.0	-12.2	13.1	-5.5%	-26.4%	28.3%
4 to 10	Basildon	Maidstone	63.2	68.1	55.6	48.0	54.3	53.0	-15.2	-13.8	-2.6	-24.1%	-20.3%	-4.7%
4 to 11	Basildon	Rochester	49.7	68.5	43.5	35.7	48.3	44.3	-14.1	-20.2	0.8	-28.3%	-29.5%	1.8%
4 to 12	Basildon	Rainham	66.4	84.9	46.9	52.4	65.3	48.2	-14.0	-19.6	1.3	-21.1%	-23.1%	2.7%
5 to 7	Tilbury Port	Bexley	28.3	39.7	42.8	28.3	35.0	48.5	0.0	-4.7	5.7	0.0%	-11.8%	13.4%
5 to 8	Tilbury Port	Godstone	58.0	53.9	64.6	58.0	49.2	70.7	0.0	-4.6	6.1	0.0%	-8.6%	9.4%
5 to 9	Tilbury Port	Southfleet	27.2	35.5	46.0	27.7	22.5	74.0	0.5	-13.0	28.0	1.9%	-36.7%	60.9%
5 to 10	Tilbury Port	Maidstone	54.6	57.3	57.3	41.9	42.6	59.0	-12.7	-14.6	1.7	-23.3%	-25.5%	3.0%
5 to 11	Tilbury Port	Rochester	41.2	57.7	42.9	29.6	36.6	48.5	-11.6	-21.0	5.7	-28.1%	-36.5%	13.2%
5 to 12	Tilbury Port	Rainham	57.9	74.1	46.9	46.4	53.6	51.9	-11.5	-20.4	5.0	-19.9%	-27.6%	10.6%
6 to 7	DP World	Bexley	32.1	43.7	44.1	32.1	41.7	46.2	0.0	-2.0	2.1	0.0%	-4.5%	4.7%
6 to 8	DP World	Godstone	61.8	57.9	64.0	61.8	56.0	66.2	0.0	-1.9	2.2	0.0%	-3.4%	3.4%
6 to 9	DP World	Southfleet	31.0	39.5	47.1	29.0	27.6	63.2	-2.0	-11.9	16.0	-6.3%	-30.1%	34.1%
6 to 10	DP World	Maidstone	58.4	61.3	57.2	43.2	47.8	54.3	-15.2	-13.5	-2.9	-26.0%	-22.0%	-5.1%
6 to 11	DP World	Rochester	45.0	61.7	43.8	30.9	41.7	44.5	-14.1	-19.9	0.7	-31.2%	-32.3%	1.6%
6 to 12	DP World	Rainham	61.7	78.1	47.4	47.7	58.7	48.7	-14.0	-19.3	1.3	-22.7%	-24.7%	2.8%

**Table D.177 Route Based Journey Time Comparison South to North Movements (2045 High Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
7 to 1	Bexley	Cheshunt	61.6	63.9	57.8	61.6	60.3	61.3	0.0	-3.7	3.5	0.1%	-5.7%	6.1%
7 to 2	Bexley	Romford	34.7	49.7	41.9	33.4	43.4	46.3	-1.3	-6.4	4.4	-3.7%	-12.8%	10.4%
7 to 3	Bexley	Brentwood	33.1	45.0	44.2	32.6	39.4	49.7	-0.5	-5.5	5.4	-1.5%	-12.3%	12.3%
7 to 4	Bexley	Basildon	36.8	46.5	47.5	36.8	38.1	58.1	0.0	-8.5	10.5	-0.1%	-18.2%	22.1%
7 to 5	Bexley	Tilbury Port	28.6	42.3	40.5	28.6	33.8	50.7	0.0	-8.5	10.2	0.0%	-20.2%	25.2%
7 to 6	Bexley	DP World	32.4	42.1	46.2	32.4	34.1	57.0	0.0	-8.0	10.8	-0.1%	-19.0%	23.4%
8 to 1	Godstone	Cheshunt	91.6	87.2	63.0	91.6	84.1	65.3	0.0	-3.1	2.4	0.0%	-3.6%	3.7%
8 to 2	Godstone	Romford	64.7	73.0	53.2	63.4	67.2	56.7	-1.3	-5.8	3.4	-2.0%	-8.0%	6.5%
8 to 3	Godstone	Brentwood	63.1	68.2	55.5	62.6	63.2	59.4	-0.5	-5.0	3.9	-0.8%	-7.3%	7.0%
8 to 4	Godstone	Basildon	66.8	69.8	57.5	66.8	61.9	64.8	0.0	-7.9	7.3	0.0%	-11.3%	12.7%
8 to 5	Godstone	Tilbury Port	58.5	65.6	53.6	58.5	57.6	61.0	0.0	-8.0	7.4	0.0%	-12.2%	13.9%
8 to 6	Godstone	DP World	62.4	65.3	57.3	62.3	57.9	64.6	0.0	-7.5	7.4	0.0%	-11.4%	12.8%
9 to 1	Southfleet	Cheshunt	60.7	63.9	57.1	60.8	58.4	62.4	0.0	-5.4	5.4	0.1%	-8.5%	9.4%
9 to 2	Southfleet	Romford	33.9	49.6	41.0	32.6	41.5	47.2	-1.3	-8.1	6.2	-3.8%	-16.4%	15.1%
9 to 3	Southfleet	Brentwood	32.3	44.9	43.2	31.8	37.6	50.8	-0.5	-7.3	7.6	-1.5%	-16.3%	17.7%
9 to 4	Southfleet	Basildon	36.0	46.4	46.5	35.8	30.6	70.4	-0.1	-15.9	23.9	-0.4%	-34.2%	51.3%
9 to 5	Southfleet	Tilbury Port	27.7	42.2	39.4	31.4	29.9	63.0	3.7	-12.3	23.6	13.4%	-29.1%	60.0%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
9 to 6	Southfleet	DP World	31.5	42.0	45.1	31.4	26.6	70.9	-0.1	-15.4	25.8	-0.4%	-36.7%	57.4%
10 to 1	Maidstone	Cheshunt	88.3	89.4	59.2	83.3	80.4	62.2	-5.0	-9.0	3.0	-5.6%	-10.1%	5.0%
10 to 2	Maidstone	Romford	61.4	75.2	49.0	56.8	62.8	54.3	-4.6	-12.4	5.2	-7.6%	-16.5%	10.7%
10 to 3	Maidstone	Brentwood	59.8	70.4	51.0	54.3	59.1	55.2	-5.5	-11.3	4.2	-9.2%	-16.1%	8.2%
10 to 4	Maidstone	Basildon	63.5	72.0	53.0	50.3	49.7	60.7	-13.2	-22.2	7.7	-20.8%	-30.9%	14.6%
10 to 5	Maidstone	Tilbury Port	55.2	67.8	48.9	45.9	49.1	56.1	-9.4	-18.7	7.1	-16.9%	-27.5%	14.6%
10 to 6	Maidstone	DP World	59.1	67.5	52.5	45.9	45.8	60.2	-13.2	-21.8	7.7	-22.3%	-32.3%	14.6%
11 to 1	Rochester	Cheshunt	76.3	93.3	49.1	70.5	73.9	57.2	-5.8	-19.4	8.2	-7.6%	-20.8%	16.6%
11 to 2	Rochester	Romford	49.4	79.0	37.5	43.9	56.3	46.8	-5.5	-22.7	9.3	-11.1%	-28.8%	24.8%
11 to 3	Rochester	Brentwood	47.8	74.3	38.6	41.5	52.6	47.3	-6.4	-21.7	8.7	-13.3%	-29.2%	22.5%
11 to 4	Rochester	Basildon	51.5	75.8	40.8	37.5	43.2	52.0	-14.0	-32.6	11.2	-27.3%	-43.0%	27.5%
11 to 5	Rochester	Tilbury Port	43.2	71.6	36.2	33.0	42.6	46.5	-10.2	-29.0	10.3	-23.6%	-40.5%	28.4%
11 to 6	Rochester	DP World	47.1	71.4	39.6	33.0	39.3	50.5	-14.0	-32.1	10.9	-29.8%	-45.0%	27.6%
12 to 1	Rainham	Cheshunt	91.7	111.2	49.5	87.7	91.0	57.8	-4.0	-20.1	8.3	-4.4%	-18.1%	16.7%
12 to 2	Rainham	Romford	64.8	96.9	40.1	61.1	73.4	49.9	-3.7	-23.5	9.8	-5.7%	-24.2%	24.4%
12 to 3	Rainham	Brentwood	63.3	92.2	41.2	58.7	69.8	50.5	-4.6	-22.4	9.3	-7.2%	-24.3%	22.6%
12 to 4	Rainham	Basildon	67.0	93.7	42.9	54.7	60.4	54.3	-12.3	-33.3	11.4	-18.3%	-35.5%	26.7%
12 to 5	Rainham	Tilbury Port	58.7	89.5	39.3	50.2	59.8	50.4	-8.4	-29.8	11.1	-14.4%	-33.2%	28.2%
12 to 6	Rainham	DP World	62.5	89.3	42.0	50.2	56.4	53.4	-12.3	-32.9	11.4	-19.6%	-36.8%	27.2%

**Table D.178 Route Based Journey Time Comparison South to North Movements (2045 High Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
7 to 1	Bexley	Cheshunt	61.6	61.6	60.0	61.6	57.0	64.9	0.0	-4.7	5.0	0.1%	-7.6%	8.3%
7 to 2	Bexley	Romford	35.8	46.4	46.3	35.8	38.9	55.2	0.0	-7.5	8.9	0.0%	-16.2%	19.3%
7 to 3	Bexley	Brentwood	33.1	44.3	44.9	34.5	36.7	56.4	1.4	-7.5	11.5	4.2%	-17.0%	25.6%
7 to 4	Bexley	Basildon	36.8	48.1	45.9	36.8	39.3	56.3	0.0	-8.9	10.3	0.0%	-18.4%	22.5%
7 to 5	Bexley	Tilbury Port	31.9	44.2	43.3	31.9	35.0	54.7	0.0	-9.2	11.3	0.0%	-20.8%	26.2%
7 to 6	Bexley	DP World	32.4	43.4	44.8	32.4	34.8	55.8	0.0	-8.6	11.0	0.0%	-19.7%	24.5%
8 to 1	Godstone	Cheshunt	91.8	83.3	66.1	91.8	79.1	69.7	0.0	-4.2	3.6	0.1%	-5.1%	5.4%
8 to 2	Godstone	Romford	66.0	68.1	58.1	66.0	61.0	64.9	0.0	-7.1	6.7	0.0%	-10.4%	11.6%
8 to 3	Godstone	Brentwood	63.3	66.0	57.6	64.7	58.9	66.0	1.4	-7.1	8.4	2.2%	-10.8%	14.5%
8 to 4	Godstone	Basildon	67.0	69.8	57.6	67.0	61.4	65.5	0.0	-8.4	7.9	0.0%	-12.0%	13.7%
8 to 5	Godstone	Tilbury Port	62.1	65.9	56.5	62.1	57.2	65.2	0.0	-8.7	8.6	0.0%	-13.3%	15.3%
8 to 6	Godstone	DP World	62.6	65.0	57.7	62.6	56.9	65.9	0.0	-8.1	8.2	0.0%	-12.5%	14.2%
9 to 1	Southfleet	Cheshunt	60.7	60.7	60.0	60.8	53.7	67.9	0.0	-6.9	7.8	0.1%	-11.4%	13.0%
9 to 2	Southfleet	Romford	35.0	45.5	46.1	35.0	35.7	58.8	0.0	-9.8	12.7	0.0%	-21.5%	27.5%
9 to 3	Southfleet	Brentwood	32.3	43.3	44.7	33.7	33.5	60.3	1.4	-9.8	15.6	4.3%	-22.7%	34.9%
9 to 4	Southfleet	Basildon	36.0	47.2	45.7	35.8	29.9	71.8	-0.1	-17.3	26.1	-0.4%	-36.6%	57.1%
9 to 5	Southfleet	Tilbury Port	31.1	43.3	43.1	34.8	29.3	71.2	3.7	-14.0	28.2	12.0%	-32.3%	65.5%



Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
9 to 6	Southfleet	DP World	31.5	42.4	44.6	31.4	25.5	74.0	-0.1	-17.0	29.4	-0.4%	-40.0%	65.9%
10 to 1	Maidstone	Cheshunt	88.3	79.0	67.1	83.3	68.1	73.4	-5.0	-10.9	6.3	-5.6%	-13.8%	9.5%
10 to 2	Maidstone	Romford	62.5	63.8	58.8	57.5	49.9	69.1	-5.0	-13.9	10.3	-8.0%	-21.7%	17.5%
10 to 3	Maidstone	Brentwood	59.8	61.6	58.2	54.9	47.1	69.9	-4.9	-14.5	11.7	-8.3%	-23.6%	20.0%
10 to 4	Maidstone	Basildon	63.5	65.5	58.2	50.3	42.2	71.5	-13.2	-23.3	13.3	-20.8%	-35.5%	22.9%
10 to 5	Maidstone	Tilbury Port	58.6	61.6	57.1	49.2	41.6	71.1	-9.4	-20.0	14.0	-16.0%	-32.5%	24.5%
10 to 6	Maidstone	DP World	59.1	60.7	58.4	45.9	37.7	72.9	-13.2	-23.0	14.6	-22.3%	-37.8%	24.9%
11 to 1	Rochester	Cheshunt	74.5	80.3	55.7	70.3	64.6	65.3	-4.2	-15.7	9.6	-5.6%	-19.5%	17.3%
11 to 2	Rochester	Romford	48.7	65.1	44.9	44.5	46.4	57.5	-4.2	-18.6	12.6	-8.7%	-28.6%	28.0%
11 to 3	Rochester	Brentwood	46.0	62.9	43.9	41.9	43.6	57.6	-4.2	-19.3	13.7	-9.0%	-30.7%	31.2%
11 to 4	Rochester	Basildon	49.7	66.8	44.7	37.3	38.7	57.8	-12.4	-28.1	13.1	-25.0%	-42.0%	29.4%
11 to 5	Rochester	Tilbury Port	44.8	62.9	42.8	36.2	38.1	57.1	-8.6	-24.8	14.3	-19.1%	-39.4%	33.5%
11 to 6	Rochester	DP World	45.3	62.0	43.8	32.9	34.2	57.6	-12.4	-27.8	13.8	-27.4%	-44.8%	31.4%
12 to 1	Rainham	Cheshunt	91.7	89.3	61.6	87.7	73.3	71.8	-4.0	-16.0	10.2	-4.4%	-17.9%	16.5%
12 to 2	Rainham	Romford	65.9	74.1	53.4	61.8	55.1	67.3	-4.1	-19.0	13.9	-6.2%	-25.6%	26.1%
12 to 3	Rainham	Brentwood	63.3	71.9	52.8	59.2	52.3	68.0	-4.0	-19.6	15.2	-6.4%	-27.3%	28.8%
12 to 4	Rainham	Basildon	67.0	75.8	53.0	54.7	47.4	69.2	-12.3	-28.4	16.2	-18.3%	-37.5%	30.6%
12 to 5	Rainham	Tilbury Port	62.0	71.9	51.8	53.6	46.7	68.8	-8.4	-25.1	17.0	-13.6%	-35.0%	32.9%
12 to 6	Rainham	DP World	62.5	71.0	52.8	50.2	42.9	70.2	-12.3	-28.1	17.4	-19.6%	-39.6%	33.0%

**Table D.179 Route Based Journey Time Comparison South to North Movements (2045 High Growth DM Vs DS) PM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
7 to 1	Bexley	Cheshunt	61.6	66.0	56.0	61.6	62.7	59.0	0.0	-3.3	3.0	0.1%	-5.0%	5.4%
7 to 2	Bexley	Romford	34.8	51.3	40.7	34.8	45.1	46.3	0.0	-6.2	5.6	-0.1%	-12.1%	13.7%
7 to 3	Bexley	Brentwood	33.2	44.4	44.8	33.1	39.1	50.9	0.0	-5.3	6.1	0.0%	-12.0%	13.6%
7 to 4	Bexley	Basildon	36.9	54.1	40.9	36.8	46.3	47.7	0.0	-7.8	6.8	-0.1%	-14.4%	16.7%
7 to 5	Bexley	Tilbury Port	28.6	43.1	39.8	28.6	35.2	48.7	0.0	-7.9	8.9	0.0%	-18.2%	22.3%
7 to 6	Bexley	DP World	32.4	47.3	41.1	32.4	39.7	49.0	0.0	-7.7	7.9	-0.1%	-16.2%	19.3%
8 to 1	Godstone	Cheshunt	91.3	90.6	60.5	91.4	88.3	62.1	0.1	-2.3	1.7	0.1%	-2.6%	2.7%
8 to 2	Godstone	Romford	64.5	75.9	51.0	64.6	70.7	54.8	0.0	-5.2	3.8	0.0%	-6.9%	7.4%
8 to 3	Godstone	Brentwood	62.9	69.0	54.7	62.9	64.7	58.4	0.0	-4.4	3.7	0.1%	-6.3%	6.8%
8 to 4	Godstone	Basildon	66.6	78.7	50.8	66.6	72.0	55.5	0.0	-6.8	4.8	0.0%	-8.6%	9.4%
8 to 5	Godstone	Tilbury Port	58.3	67.7	51.7	58.3	60.8	57.6	0.0	-6.9	5.9	0.1%	-10.1%	11.4%
8 to 6	Godstone	DP World	62.1	72.0	51.8	62.2	65.3	57.1	0.0	-6.7	5.3	0.0%	-9.3%	10.3%
9 to 1	Southfleet	Cheshunt	60.7	63.3	57.6	60.8	58.8	62.0	0.0	-4.5	4.4	0.1%	-7.1%	7.7%
9 to 2	Southfleet	Romford	33.9	48.6	41.9	33.9	41.2	49.4	0.0	-7.4	7.5	-0.1%	-15.2%	17.8%
9 to 3	Southfleet	Brentwood	32.3	41.7	46.5	32.3	35.2	55.0	0.0	-6.5	8.5	0.0%	-15.5%	18.4%
9 to 4	Southfleet	Basildon	36.0	51.4	42.0	35.8	37.9	56.8	-0.1	-13.5	14.7	-0.4%	-26.3%	35.1%
9 to 5	Southfleet	Tilbury Port	27.7	40.3	41.2	27.7	31.3	53.1	0.0	-9.0	11.8	0.0%	-22.3%	28.7%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
9 to 6	Southfleet	DP World	31.5	44.6	42.4	31.4	31.2	60.4	-0.1	-13.4	17.9	-0.4%	-30.0%	42.3%
10 to 1	Maidstone	Cheshunt	88.3	84.0	63.0	83.3	79.0	63.3	-5.0	-5.1	0.3	-5.6%	-6.0%	0.5%
10 to 2	Maidstone	Romford	61.5	69.3	53.2	56.4	61.3	55.3	-5.0	-8.0	2.1	-8.2%	-11.6%	3.9%
10 to 3	Maidstone	Brentwood	59.8	62.4	57.5	54.9	54.9	60.0	-4.9	-7.5	2.5	-8.3%	-12.1%	4.3%
10 to 4	Maidstone	Basildon	63.5	72.1	52.8	50.3	52.7	57.3	-13.2	-19.4	4.4	-20.8%	-26.9%	8.4%
10 to 5	Maidstone	Tilbury Port	55.2	61.1	54.3	45.9	45.9	59.9	-9.4	-15.1	5.7	-16.9%	-24.8%	10.4%
10 to 6	Maidstone	DP World	59.1	65.4	54.2	45.9	46.0	59.8	-13.2	-19.3	5.6	-22.3%	-29.6%	10.2%
11 to 1	Rochester	Cheshunt	74.5	93.2	48.0	70.3	76.9	54.9	-4.2	-16.3	6.9	-5.6%	-17.5%	14.4%
11 to 2	Rochester	Romford	47.7	78.4	36.5	43.4	59.2	44.0	-4.2	-19.2	7.5	-8.9%	-24.5%	20.7%
11 to 3	Rochester	Brentwood	46.0	71.6	38.6	41.9	52.8	47.5	-4.2	-18.7	8.9	-9.1%	-26.2%	23.2%
11 to 4	Rochester	Basildon	49.7	81.3	36.7	37.3	50.7	44.2	-12.4	-30.6	7.5	-25.0%	-37.7%	20.3%
11 to 5	Rochester	Tilbury Port	41.4	70.2	35.4	32.9	43.9	45.0	-8.6	-26.3	9.5	-20.7%	-37.5%	26.9%
11 to 6	Rochester	DP World	45.3	74.5	36.5	32.9	44.0	44.8	-12.4	-30.5	8.4	-27.4%	-41.0%	22.9%
12 to 1	Rainham	Cheshunt	91.6	98.0	56.1	87.7	81.1	64.9	-3.9	-16.9	8.8	-4.3%	-17.3%	15.7%
12 to 2	Rainham	Romford	64.8	83.3	46.7	60.8	63.4	57.5	-4.0	-19.9	10.8	-6.2%	-23.9%	23.2%
12 to 3	Rainham	Brentwood	63.2	76.4	49.6	59.2	57.0	62.3	-3.9	-19.4	12.7	-6.2%	-25.4%	25.7%
12 to 4	Rainham	Basildon	66.9	86.1	46.6	54.7	54.8	59.8	-12.2	-31.3	13.2	-18.2%	-36.3%	28.4%
12 to 5	Rainham	Tilbury Port	58.6	75.0	46.8	50.2	48.0	62.7	-8.3	-27.0	15.9	-14.2%	-36.0%	33.9%
12 to 6	Rainham	DP World	62.4	79.3	47.2	50.2	48.2	62.6	-12.2	-31.2	15.4	-19.5%	-39.3%	32.6%

## **D.9 LTAM 2051 High Growth – Outputs to Economic Assessment**

D.9.1 The analysis presented below summarises the impact of the LTC scheme on forecast traffic flows and journey times for the 2051 high growth forecast.

### **Matrix Total Comparison**

D.9.2 Table D.180 and Table D.181 show that the VDMs have converged to the desired criteria.

D.9.3 Table D.182 and Table D.183 provide a comparison of the input reference matrices with the VDM output matrices. The SATURN format comparisons are provided for all movements and relevant movements.

**Table D.180 Convergence and Stability Statistics (High 2051 DM)**

Iteration	% GAP		Cost stability				Flow stability				Totals
	Full Model	Subset Area	RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%	Trips*
1	13.22%	22.33%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%	101,301,420
2	6.18%	8.53%	0.022	1.266	2.233	83.67%	0.148	0.042	5.939	25.48%	101,845,100
3	3.02%	3.96%	0.004	0.228	0.422	99.86%	0.058	0.020	2.970	54.57%	102,122,000
4	1.49%	1.92%	0.001	0.049	0.094	99.99%	0.028	0.010	1.485	83.94%	102,261,260
5	0.74%	0.96%	0.000	0.022	0.064	99.98%	0.014	0.005	0.742	97.57%	102,330,980
6	0.38%	0.51%	0.001	0.029	0.102	99.98%	0.007	0.002	0.371	99.57%	102,365,840
7	0.19%	0.28%	0.001	0.027	0.085	99.99%	0.004	0.001	0.186	99.82%	102,383,240
8	0.10%	0.17%	0.000	0.020	0.085	99.98%	0.002	0.001	0.094	99.95%	102,391,980
9	0.06%	0.18%	0.001	0.040	0.125	99.99%	0.001	0.000	0.047	99.97%	102,396,310
10	0.04%	0.15%	0.001	0.048	0.152	99.98%	0.002	0.000	0.024	99.93%	102,398,520
11	0.02%	0.10%	0.001	0.025	0.073	99.99%	0.001	0.000	0.013	99.98%	102,399,550

*\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report*

**Table D.181 Convergence and Stability Statistics (High 2051 DS)**

Iteration	% GAP		Cost stability				Flow stability				Totals
	Full Model	Subset Area	RAAD	AAD	RMS	%<5%	RAAD	AAD	RMS	%<5%	Trips*
1	13.21%	22.29%	0.000	0.000	0.000	0%	0.000	0.000	0.000	0%	101,301,420
2	6.20%	8.73%	0.014	0.773	1.502	92.65%	0.167	0.042	5.940	26.88%	101,847,470
3	3.03%	4.05%	0.003	0.150	0.267	99.97%	0.061	0.020	2.970	53.85%	102,124,560
4	1.50%	1.95%	0.001	0.041	0.080	99.99%	0.029	0.010	1.485	83.04%	102,263,800
5	0.75%	0.97%	0.000	0.021	0.057	99.99%	0.014	0.005	0.742	97.77%	102,333,460
6	0.37%	0.50%	0.000	0.016	0.050	99.99%	0.007	0.002	0.371	99.57%	102,368,310
7	0.19%	0.27%	0.000	0.017	0.061	99.99%	0.004	0.001	0.188	99.90%	102,385,810
8	0.10%	0.17%	0.000	0.017	0.062	99.99%	0.002	0.001	0.097	99.97%	102,394,490
9	0.06%	0.13%	0.000	0.016	0.052	100.00%	0.001	0.000	0.049	99.99%	102,398,790
10	0.03%	0.10%	0.000	0.016	0.055	99.99%	0.001	0.000	0.028	100.00%	102,400,980

*\* the trips column numbers only refer to those trips in the VDM that are considered variable. These totals therefore are not expected to match matrix totals reported elsewhere in this report*

**Table D.182 LTAM DIADEM Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices  
(High 2051 Reference DM and DS Highway Trips in PCUs)**

Segment	Matrix Type	Time Period	Reference Matrix (High 2051)	VDM Output Matrix (High 2051 DM)			VDM Output Matrix (High 2051 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
HBEB	24Hr PA	N/A	3,646,180	3,648,964	2,785	0.1%	3,649,018	2,838	0.1%
HBW L	24Hr PA	N/A	3,127,530	3,130,278	2,748	0.1%	3,130,298	2,768	0.1%
HBW M	24Hr PA	N/A	5,521,782	5,519,655	-2,127	0.0%	5,519,753	-2,029	0.0%
HBW H	24Hr PA	N/A	4,318,516	4,306,741	-11,775	-0.3%	4,306,887	-11,629	-0.3%
HBO L	24Hr PA	N/A	9,215,771	9,483,910	268,139	2.9%	9,484,013	268,241	2.9%
HBO M	24Hr PA	N/A	8,270,684	8,385,692	115,008	1.4%	8,385,879	115,195	1.4%
HBO H	24Hr PA	N/A	5,954,007	5,985,868	31,861	0.5%	5,986,115	32,108	0.5%
NHBEB	By Time Period OD	AM	122,208	121,118	-1,090	-0.9%	121,191	-1,017	-0.8%
		IP	158,289	158,052	-238	-0.2%	158,065	-224	-0.1%
		PM	176,485	173,538	-2,947	-1.7%	173,540	-2,946	-1.7%
		OP	44,577	45,425	848	1.9%	45,408	831	1.9%
NHBO L	By Time Period OD	AM	180,249	184,491	4,242	2.4%	184,604	4,355	2.4%
		IP	478,044	491,040	12,996	2.7%	491,033	12,989	2.7%
		PM	377,504	382,692	5,188	1.4%	382,739	5,235	1.4%
		OP	105,145	110,230	5,085	4.8%	110,204	5,059	4.8%

Segment	Matrix Type	Time Period	Reference Matrix (High 2051)	VDM Output Matrix (High 2051 DM)			VDM Output Matrix (High 2051 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
NHBO M	By Time Period OD	AM	191,741	192,620	879	0.5%	192,714	973	0.5%
		IP	382,282	387,637	5,355	1.4%	387,689	5,407	1.4%
		PM	379,538	379,231	-307	-0.1%	379,229	-310	-0.1%
		OP	94,035	97,061	3,025	3.2%	97,029	2,994	3.2%
NHBO H	By Time Period OD	AM	154,422	153,366	-1,056	-0.7%	153,413	-1,009	-0.7%
		IP	261,690	262,995	1,305	0.5%	263,026	1,336	0.5%
		PM	294,042	290,703	-3,339	-1.1%	290,781	-3,261	-1.1%
		OP	69,042	70,948	1,906	2.8%	70,921	1,879	2.7%
LGV	By Time Period OD	AM	1,208,068	1,208,068	0	0.0%	1,208,068	0	0.0%
		IP	1,043,403	1,043,403	0	0.0%	1,043,403	0	0.0%
		PM	872,050	872,050	0	0.0%	872,050	0	0.0%
		OP	420,650	420,650	0	0.0%	420,650	0	0.0%
HGV	By Time Period OD	AM	165,837	165,837	0	0.0%	165,837	0	0.0%
		IP	186,210	186,210	0	0.0%	186,210	0	0.0%
		PM	107,430	107,430	0	0.0%	107,430	0	0.0%
		OP	73,892	73,892	0	0.0%	73,892	0	0.0%



Segment	Matrix Type	Time Period	Reference Matrix (High 2051)	VDM Output Matrix (High 2051 DM)			VDM Output Matrix (High 2051 DS)		
			Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Port Trips EB	By Time Period OD	AM	5,622	5,622	0	0.0%	5,622	0	0.0%
		IP	3,922	3,922	0	0.0%	3,922	0	0.0%
		PM	4,911	4,911	0	0.0%	4,911	0	0.0%
		OP	1,523	1,523	0	0.0%	1,523	0	0.0%
Port Trips O LI	By Time Period OD	AM	3,278	3,278	0	0.0%	3,278	0	0.0%
		IP	4,031	4,031	0	0.0%	4,031	0	0.0%
		PM	4,008	4,008	0	0.0%	4,008	0	0.0%
		OP	1,310	1,310	0	0.0%	1,310	0	0.0%
Port Trips O MI	By Time Period OD	AM	3,822	3,822	0	0.0%	3,822	0	0.0%
		IP	4,256	4,256	0	0.0%	4,256	0	0.0%
		PM	4,700	4,700	0	0.0%	4,700	0	0.0%
		OP	1,452	1,452	0	0.0%	1,452	0	0.0%
Port Trips O HI	By Time Period OD	AM	5,423	5,423	0	0.0%	5,423	0	0.0%
		IP	4,529	4,529	0	0.0%	4,529	0	0.0%
		PM	6,004	6,004	0	0.0%	6,004	0	0.0%
		OP	1,738	1,738	0	0.0%	1,738	0	0.0%

**Table D.183 LTAM SATURN Matrix Total Comparison – Reference Matrix Vs VDM Output Matrices  
(High 2051 Reference DM and DS Hourly PCUs)**

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (High 2051)	VDM Output Matrix (High 2051 DM)			VDM Output Matrix (High 2051 DS)			Reference Matrix (High 2051)	VDM Output Matrix (High 2051 DM)			VDM Output Matrix (High 2051 DS)		
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Employers Business	AM	632,317	630,632	-1,685	-0.3%	630,770	-1,546	-0.2%	52,972	51,091	-1,881	-3.6%	51,246	-1,726	-3.3%
	IP	550,987	550,761	-226	0.0%	550,778	-209	0.0%	36,648	36,225	-423	-1.2%	36,252	-396	-1.1%
	PM	759,750	754,228	-5,522	-0.7%	754,270	-5,480	-0.7%	53,522	50,960	-2,561	-4.8%	51,022	-2,500	-4.7%
	OP	217,564	219,271	1,707	0.8%	219,243	1,679	0.8%	14,761	16,194	1,433	9.7%	16,173	1,411	9.6%
Car Commute Low Income	AM	578,290	573,375	-4,915	-0.8%	573,345	-4,944	-0.9%	42,426	42,294	-132	-0.3%	42,252	-173	-0.4%
	IP	263,577	265,366	1,789	0.7%	265,390	1,813	0.7%	24,019	24,400	381	1.6%	24,425	407	1.7%
	PM	662,153	660,172	-1,981	-0.3%	660,187	-1,965	-0.3%	44,551	44,315	-236	-0.5%	44,330	-221	-0.5%
	OP	105,541	106,573	1,031	1.0%	106,572	1,031	1.0%	8,949	9,406	456	5.1%	9,405	456	5.1%
Car Commute Medium Income	AM	1,165,467	1,159,274	-6,193	-0.5%	1,159,415	-6,051	-0.5%	89,456	88,005	-1,451	-1.6%	88,138	-1,317	-1.5%
	IP	404,212	405,445	1,234	0.3%	405,439	1,228	0.3%	36,825	36,873	48	0.1%	36,870	45	0.1%
	PM	1,267,255	1,264,058	-3,197	-0.3%	1,264,107	-3,147	-0.2%	88,240	86,415	-1,825	-2.1%	86,462	-1,779	-2.0%
	OP	161,727	162,732	1,005	0.6%	162,716	989	0.6%	13,705	14,216	511	3.7%	14,200	495	3.6%

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (High 2051)	VDM Output Matrix (High 2051 DM)			VDM Output Matrix (High 2051 DS)			Reference Matrix (High 2051)	VDM Output Matrix (High 2051 DM)			VDM Output Matrix (High 2051 DS)		
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Commute High Income	AM	990,017	985,732	-4,285	-0.4%	985,661	-4,356	-0.4%	85,885	83,358	-2,527	-2.9%	83,283	-2,602	-3.0%
	IP	287,970	287,461	-510	-0.2%	287,476	-495	-0.2%	31,445	31,024	-421	-1.3%	31,040	-404	-1.3%
	PM	1,024,980	1,020,046	-4,934	-0.5%	1,020,270	-4,710	-0.5%	86,787	83,382	-3,406	-3.9%	83,603	-3,185	-3.7%
	OP	115,146	115,403	258	0.2%	115,396	250	0.2%	11,855	12,112	256	2.2%	12,104	249	2.1%
Car Other Low Income	AM	978,533	1,004,321	25,787	2.6%	1,004,601	26,068	2.7%	104,278	102,958	-1,320	-1.3%	103,338	-941	-0.9%
	IP	1,733,662	1,779,593	45,931	2.6%	1,779,516	45,855	2.6%	144,709	147,306	2,597	1.8%	147,366	2,657	1.8%
	PM	1,696,611	1,731,593	34,983	2.1%	1,731,742	35,131	2.1%	155,106	150,590	-4,515	-2.9%	150,870	-4,235	-2.7%
	OP	542,653	564,037	21,384	3.9%	563,957	21,304	3.9%	46,629	52,837	6,208	13.3%	52,786	6,157	13.2%
Car Other Medium Income	AM	1,044,475	1,052,868	8,393	0.8%	1,053,051	8,575	0.8%	115,394	110,313	-5,081	-4.4%	110,579	-4,814	-4.2%
	IP	1,386,834	1,404,871	18,037	1.3%	1,404,964	18,131	1.3%	134,526	133,800	-726	-0.5%	133,992	-534	-0.4%
	PM	1,710,020	1,719,339	9,319	0.5%	1,719,357	9,337	0.5%	172,690	163,939	-8,751	-5.1%	164,073	-8,616	-5.0%
	OP	485,710	497,439	11,729	2.4%	497,369	11,660	2.4%	47,119	51,565	4,446	9.4%	51,516	4,397	9.3%
Car Other High Income	AM	838,329	836,157	-2,172	-0.3%	836,242	-2,087	-0.2%	109,598	102,509	-7,089	-6.5%	102,687	-6,911	-6.3%
	IP	935,642	939,856	4,214	0.5%	939,884	4,241	0.5%	109,956	107,400	-2,555	-2.3%	107,494	-2,462	-2.2%
	PM	1,302,474	1,297,040	-5,434	-0.4%	1,297,312	-5,163	-0.4%	155,115	144,445	-10,671	-6.9%	144,835	-10,281	-6.6%
	OP	351,449	357,756	6,308	1.8%	357,697	6,248	1.8%	41,184	44,338	3,154	7.7%	44,290	3,107	7.5%

Userclass	Time Period	All Movements							Relevant Movements						
		Reference Matrix (High 2051)	VDM Output Matrix (High 2051 DM)			VDM Output Matrix (High 2051 DS)			Reference Matrix (High 2051)	VDM Output Matrix (High 2051 DM)			VDM Output Matrix (High 2051 DS)		
		Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %	Matrix Total	Matrix Total	Diff to Reference	Diff %	Matrix Total	Diff to Reference	Diff %
Car Total	AM	6,227,427	6,242,357	14,931	0.2%	6,243,085	15,658	0.3%	600,007	580,528	-19,479	-3.2%	581,523	-18,484	-3.1%
	IP	5,562,882	5,633,353	70,470	1.3%	5,633,447	70,564	1.3%	518,126	517,027	-1,099	-0.2%	517,438	-688	-0.1%
	PM	8,423,242	8,446,476	23,234	0.3%	8,447,245	24,002	0.3%	756,011	724,046	-31,964	-4.2%	725,194	-30,817	-4.1%
	OP	1,979,790	2,023,212	43,421	2.2%	2,022,950	43,160	2.2%	184,203	200,667	16,464	8.9%	200,475	16,272	8.8%
LGV	AM	1,208,068	1,208,068	0	0.0%	1,208,068	0	0.0%	149,839	149,839	0	0.0%	149,839	0	0.0%
	IP	1,043,404	1,043,404	0	0.0%	1,043,404	0	0.0%	113,260	113,260	0	0.0%	113,260	0	0.0%
	PM	872,050	872,050	0	0.0%	872,050	0	0.0%	115,695	115,695	0	0.0%	115,695	0	0.0%
	OP	420,650	420,650	0	0.0%	420,650	0	0.0%	45,046	45,046	0	0.0%	45,046	0	0.0%
HGV	AM	165,837	165,837	0	0.0%	165,837	0	0.0%	68,019	68,019	0	0.0%	68,019	0	0.0%
	IP	186,210	186,210	0	0.0%	186,210	0	0.0%	74,718	74,718	0	0.0%	74,718	0	0.0%
	PM	107,430	107,430	0	0.0%	107,430	0	0.0%	42,901	42,901	0	0.0%	42,901	0	0.0%
	OP	73,892	73,892	0	0.0%	73,892	0	0.0%	29,300	29,300	0	0.0%	29,300	0	0.0%

## Highway Assignment Model (HAM) Convergence Statistics

D.9.4 Table D.184 to Table D.186 provide the highway assignment model convergence statistics for the 2051 high growth DM forecasts. Table D.187 to Table D.189 provide the highway assignment model convergence statistics for the 2051 high growth DS forecasts.

**Table D.184 HAM Convergence Statistics – 2051 High Growth DM AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
90	0.0053	0.0082	98.7	99.2
91	0.0045	0.0086	98.8	99.0
92	0.0053	0.0089	98.8	99.2
93	0.0060	0.0090	98.8	99.0

**Table D.185 HAM Convergence Statistics – 2051 High Growth DM Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
83	0.0035	0.0037	98.5	99.4
84	0.0029	0.0038	99.0	99.5
85	0.0030	0.0034	98.7	99.5
86	0.0026	0.0058	99.0	99.4

**Table D.186 HAM Convergence Statistics – 2051 High Growth DM PM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
94	0.0057	0.0081	98.5	98.9
95	0.0067	0.0070	98.6	99.0
96	0.0053	0.0074	98.8	99.1
97	0.0054	0.0077	98.7	99.0

**Table D.187 HAM Convergence Statistics – 2051 High Growth DS AM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
88	0.0058	0.0087	98.6	99.1
89	0.0065	0.0065	98.7	99.1
90	0.0064	0.0084	98.9	99.2
91	0.0080	0.0067	98.5	99.1

**Table D.188 HAM Convergence Statistics – 2051 High Growth DS Inter Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
88	0.0043	0.0045	98.6	99.1
89	0.0031	0.0042	98.6	99.3
90	0.0030	0.0041	98.6	99.4
91	0.0038	0.0037	98.7	99.4

**Table D.189 HAM Convergence Statistics – 2051 High Growth DS PM Peak**

Iteration	Delta (%)	%GAP	%Flows	%Delays
98	0.0058	0.0078	98.8	99.0
99	0.0061	0.0076	98.9	99.0
100	0.0056	0.0077	98.7	98.9
101	0.0062	0.0083	98.7	98.8

D.9.5 These tables demonstrate that the LTAM has achieved the TAG convergence targets in all time periods for this scenario and year.

### **Movement Patterns Using the Crossings**

D.9.6 Plate D.85 to Plate D.93 provide select link analysis of movements using the Dartford and Lower Thames Crossing for the Do Minimum and Do Something scenarios for each of the model time periods. These diagrams show the pattern of movements using each of the crossings in each of the time periods. Table D.190 to Table D.192 provide a summary of the main corridors using each of the crossings and a comparison between the DM and DS scenarios for each time period.

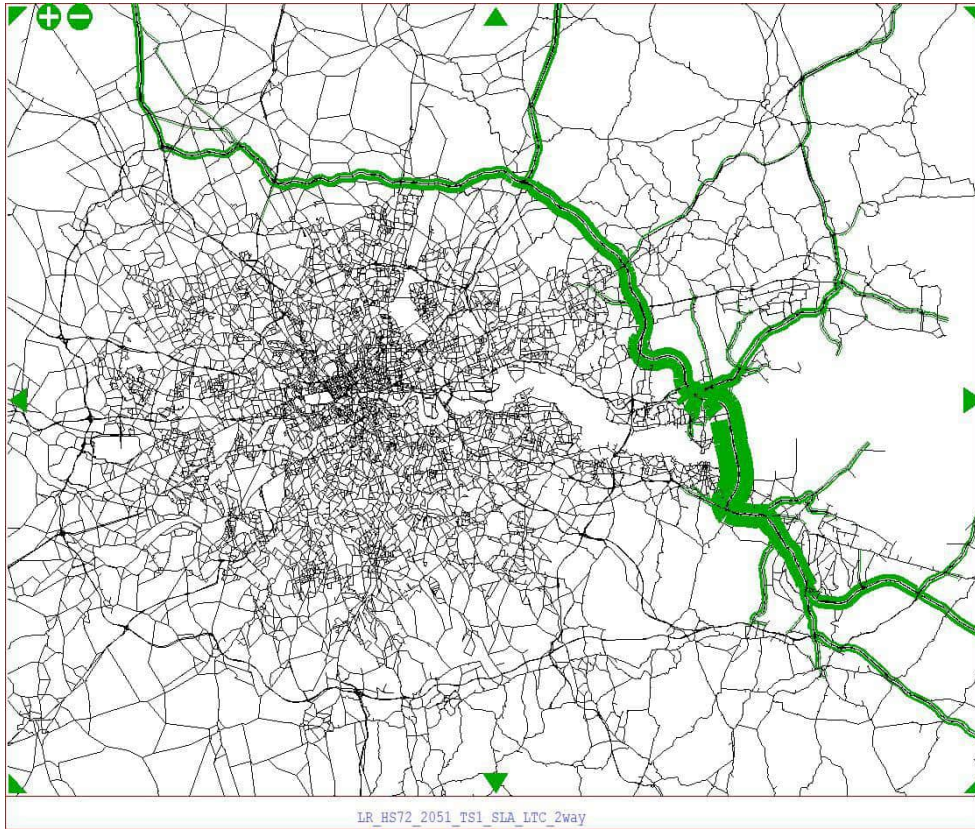
### Plate D.85 Select Link Analysis – Dartford Crossing DM 2051 High AM Peak



### Plate D.86 Select Link Analysis – Dartford Crossing DS 2051 High AM Peak



**Plate D.87 Select Link Analysis – Lower Thames Crossing DS 2051 High AM Peak**



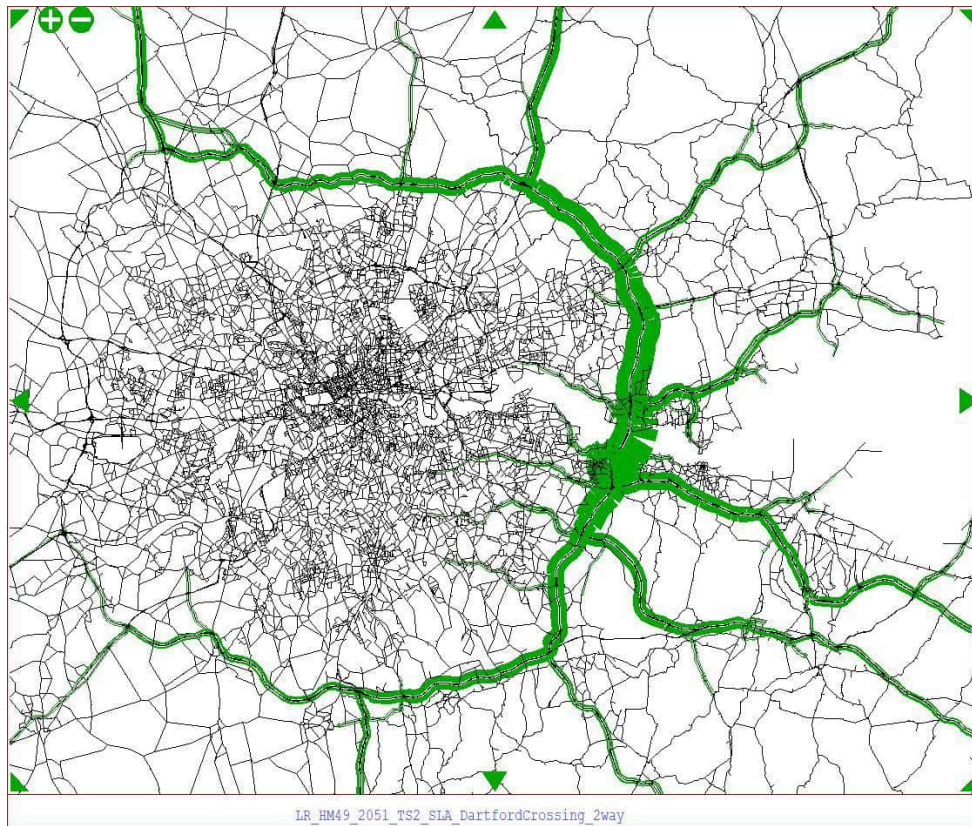


**Table D.190 Select Link Analysis – Summary of Primary Corridors of Movement  
2051 High AM Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,551	16%	3,828	25%	1277	50%
	Local (Outside M25)	2,077	13%	2,150	14%	73	4%
	M25 South (J2-3)	7,657	49%	8,056	53%	399	5%
	A2/M2 to/from Kent	3,196	21%	1,276	8%	-1920	-60%
Select Link	Dartford Crossing	<b>15,481</b>	<b>100%</b>	<b>15,311</b>	<b>100%</b>	<b>-170</b>	<b>-1%</b>
North of River	London North	2,084	13%	3,066	20%	982	47%
	Local Traffic	1,555	10%	1,834	12%	279	18%
	M25 North (J30-29)	9,083	59%	7,897	52%	-1185	-13%
	A13 to/from Essex	2,759	18%	2,513	16%	-246	-9%
South of River	Local Traffic	n/a	n/a	958	10%	n/a	n/a
	A2 West of LTC	n/a	n/a	701	7%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	7,700	82%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>9,359</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	900	10%	n/a	n/a
	A13 West of LTC	n/a	n/a	108	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	3,665	39%	n/a	n/a
	M25 North of LTC	n/a	n/a	4,685	50%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

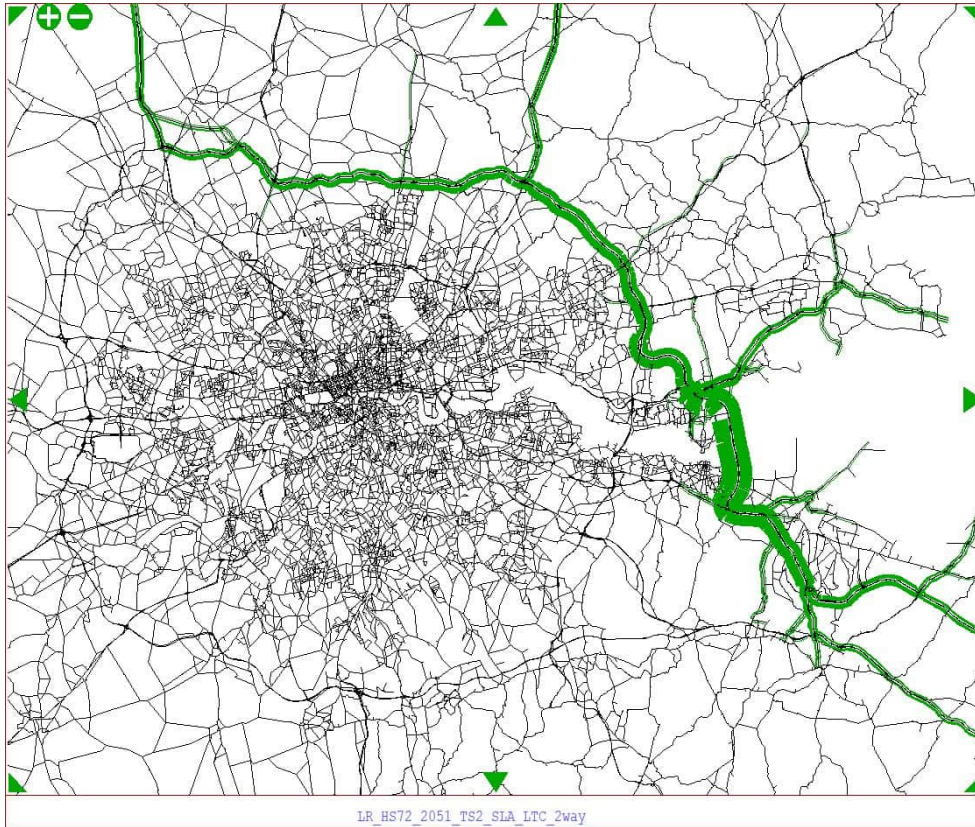
### Plate D.88 Select Link Analysis – Dartford Crossing DM 2051 High Inter Peak



### Plate D.89 Select Link Analysis – Dartford Crossing DS 2051 High Inter Peak



### Plate D.90 Select Link Analysis – Lower Thames Crossing DS 2051 High Inter Peak

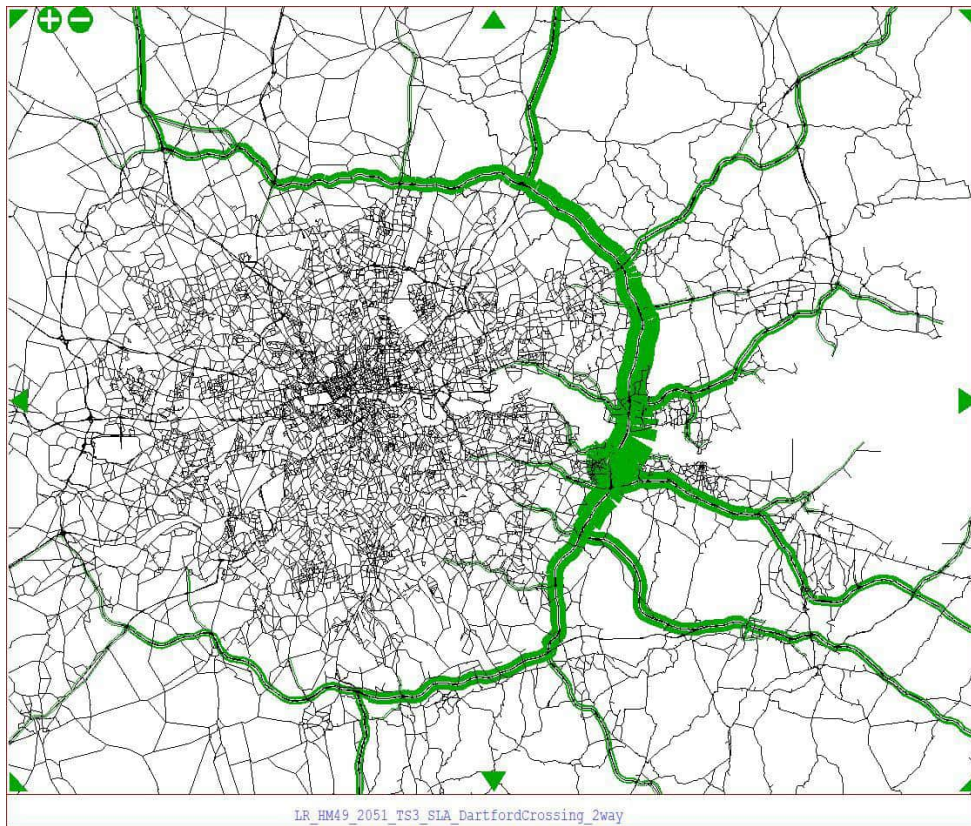


**Table D.191 Select Link Analysis – Summary of Primary Corridors of Movement  
2051 High Inter Peak Two-Way Flow**

Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,418	16%	3,162	23%	745	31%
	Local (Outside M25)	1,732	11%	1,521	11%	-210	-12%
	M25 South (J2-3)	7,437	49%	7,700	56%	264	4%
	A2/M2 to/from Kent	3,688	24%	1,374	10%	-2314	-63%
Select Link	Dartford Crossing	<b>15,274</b>	<b>100%</b>	<b>13,758</b>	<b>100%</b>	<b>-1516</b>	<b>-10%</b>
North of River	London North	1,861	12%	2,550	19%	689	37%
	Local Traffic	1,742	11%	1,879	14%	137	8%
	M25 North (J30-29)	8,447	55%	6,668	48%	-1779	-21%
	A13 to/from Essex	3,224	21%	2,660	19%	-563	-17%
South of River	Local Traffic	n/a	n/a	1,000	12%	n/a	n/a
	A2 West of LTC	n/a	n/a	601	7%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	6,756	81%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>8,357</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	795	10%	n/a	n/a
	A13 West of LTC	n/a	n/a	112	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	3,356	40%	n/a	n/a
	M25 North of LTC	n/a	n/a	4,094	49%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

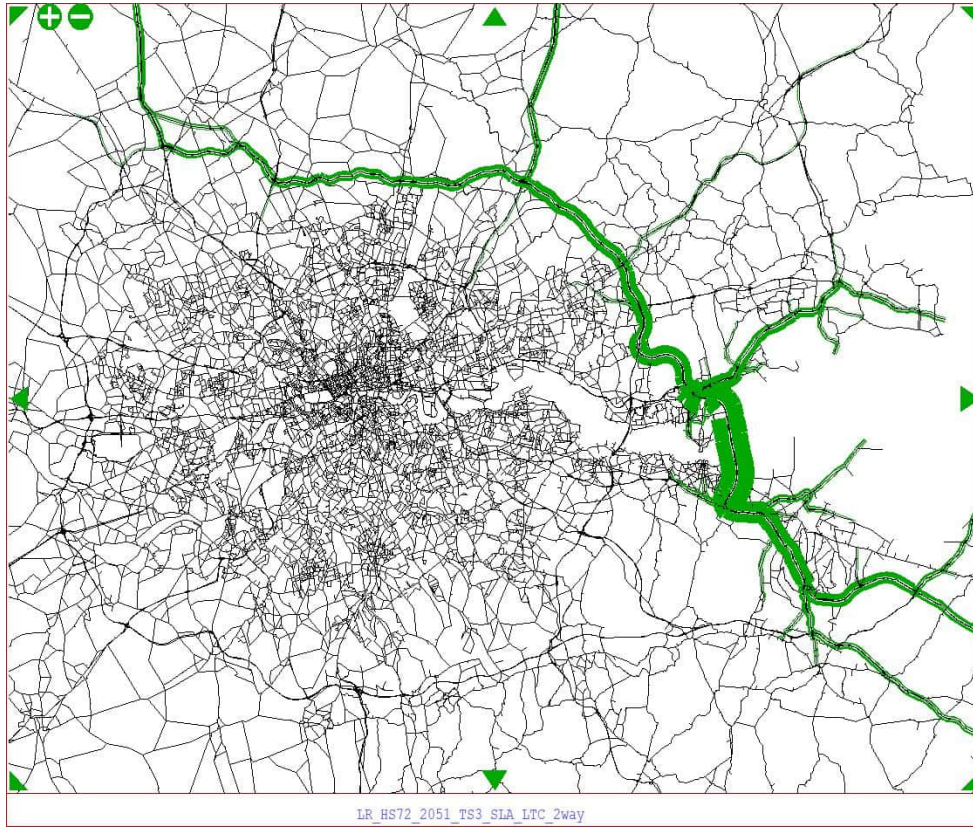
### Plate D.91 Select Link Analysis – Dartford Crossing DM 2051 High PM Peak



### Plate D.92 Select Link Analysis – Dartford Crossing DS 2051 High PM Peak



### Plate D.93 Select Link Analysis – Lower Thames Crossing DS 2051 High PM Peak



**Table D.192 Select Link Analysis – Summary of Primary Corridors of Movement  
2051 High PM Peak Two-Way Flow**

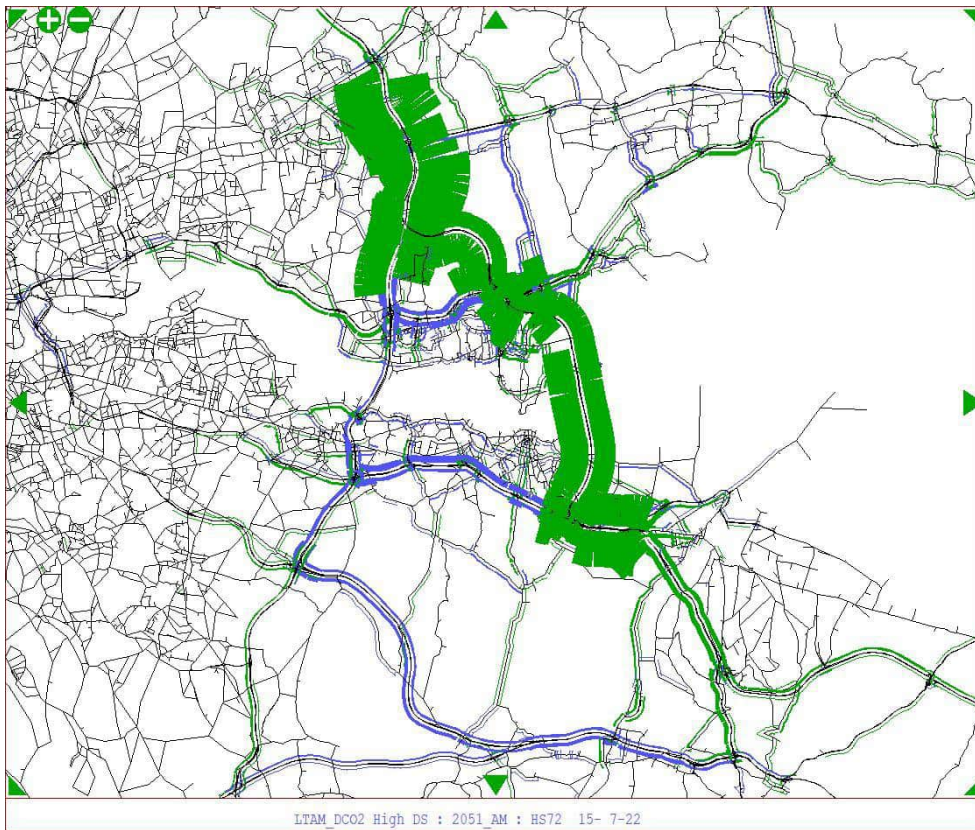
Movement	Corridor	DM		DS		DS-DM SLA Flow (PCU)	% change (DM to DS) in SLA Flow
		SLA Flow (PCU) <sup>1</sup>	% of Selected Link Flow	SLA Flow (PCU)	% of Selected Link Flow		
South of River	Local (Inside M25)	2,523	17%	3,225	23%	702	28%
	Local (Outside M25)	1,591	10%	1,624	12%	33	2%
	M25 South (J2-3)	7,303	48%	7,354	53%	51	1%
	A2/M2 to/from Kent	3,844	25%	1,674	12%	-2170	-56%
Select Link	Dartford Crossing	<b>15,262</b>	<b>100%</b>	<b>13,877</b>	<b>100%</b>	<b>-1385</b>	<b>-9%</b>
North of River	London North	2,371	16%	3,192	23%	821	35%
	Local Traffic	1,659	11%	1,780	13%	121	7%
	M25 North (J30-29)	8,052	53%	6,535	47%	-1517	-19%
	A13 to/from Essex	3,180	21%	2,370	17%	-810	-25%
South of River	Local Traffic	n/a	n/a	1,446	16%	n/a	n/a
	A2 West of LTC	n/a	n/a	817	9%	n/a	n/a
	A2/A2M East of LTC	n/a	n/a	6,977	76%	n/a	n/a
Select Link	Lower Thames Crossing	n/a	n/a	<b>9,241</b>	<b>100%</b>	n/a	n/a
North of River	A1089	n/a	n/a	1,022	11%	n/a	n/a
	A13 West of LTC	n/a	n/a	78	1%	n/a	n/a
	A13 East of LTC	n/a	n/a	4,238	46%	n/a	n/a
	M25 North of LTC	n/a	n/a	3,904	42%	n/a	n/a
	M25 South of LTC	n/a	n/a	0	0%	n/a	n/a

<sup>1</sup>SLA (Select Link Analysis) Flow refers to the PCU flow on a link(s) that is also on the Select Link

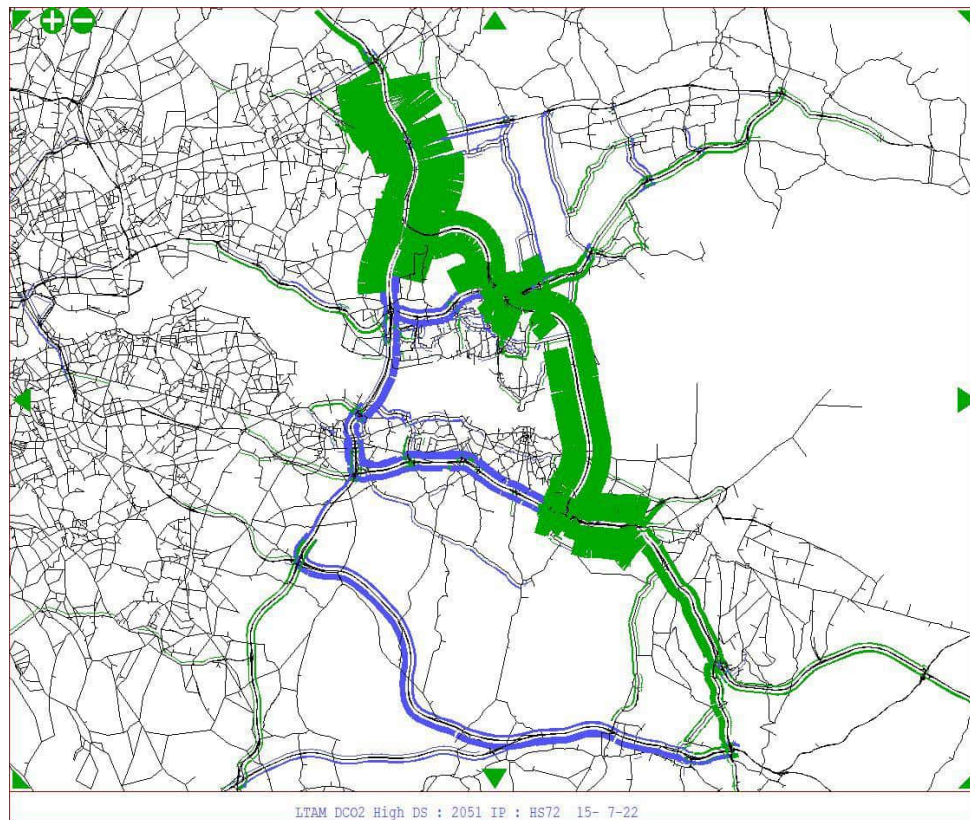
## DM Vs DS Flow Comparisons

- D.9.7 The impacts of the LTC scheme on traffic flows are presented in a number of different ways. Plate D.94 to Plate D.96 provide a flow difference plot between the DM and DS scenarios. Blue colours equate to reductions in flow, green colours indicate increases in flow. Flow differences less than 100 PCUs per hour have been excluded from the colouring.
- D.9.8 Table D.193 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link approaching the TMC. Table D.194 provides a comparison of the cross-river traffic flows between the DM and DS scenarios with the northbound flows at Dartford being taken from the link after the TMC.

**Plate D.94 Actual Flow Comparison Plot – 2051 High Growth DM Vs DS AM Peak**

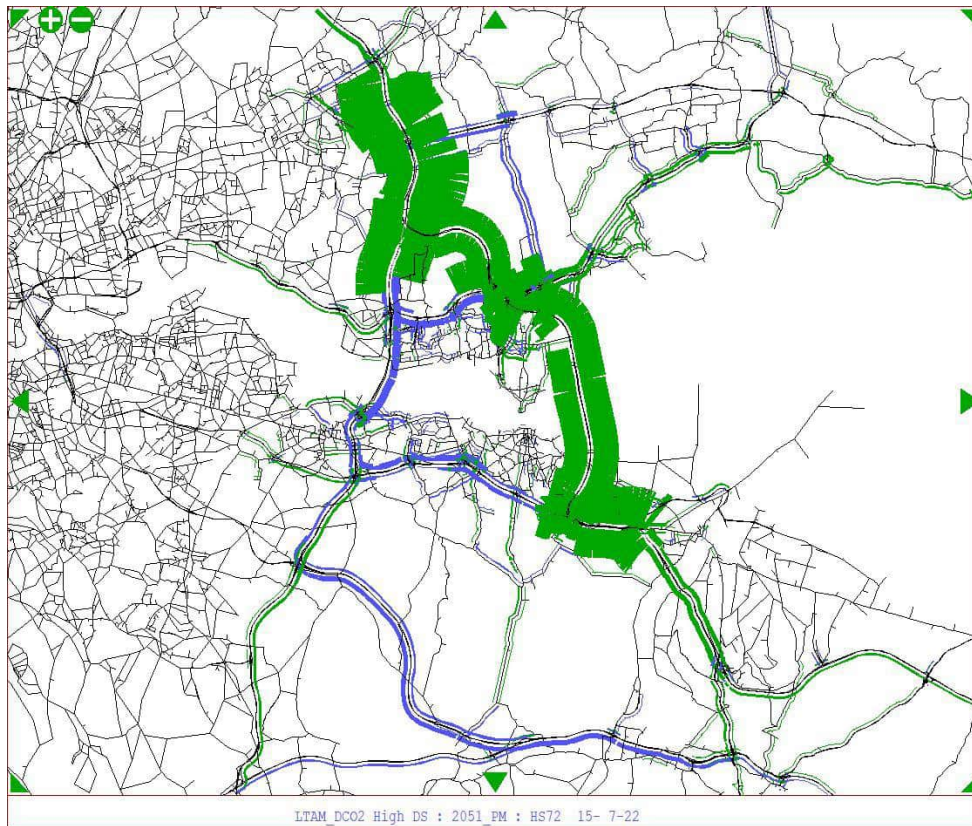


**Plate D.95 Actual Flow Comparison Plot – 2051 High Growth DM Vs DS Inter Peak**





### Plate D.96 Actual Flow Comparison Plot – 2051 High Growth DM Vs DS PM Peak



**Table D.193 Cross River Traffic Flows (NB Flows Approaching TMC) – 2051 High Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,225	3,706	482	15%	1,960	1,947	-13	-1%	3,315	2,847	-468	-14%	8,500	8,500	0	0%	8,500	1.00	1.00
		IP	3,718	3,462	-256	-7%	1,079	919	-160	-15%	3,588	2,583	-1,004	-28%	8,384	6,964	-1,420	-17%	8,500	0.99	0.82
		PM	4,857	4,443	-414	-9%	1,329	1,043	-286	-22%	2,314	1,630	-684	-30%	8,500	7,115	-1,385	-16%	8,500	1.00	0.84
	LTC	AM	0	2,531	-	-	0	399	-	-	0	1,083	-	-	0	4,013	-	-	6,360	-	0.63
		IP	0	2,196	-	-	0	232	-	-	0	1,156	-	-	0	3,584	-	-	6,360	-	0.56
		PM	0	3,664	-	-	0	389	-	-	0	803	-	-	0	4,857	-	-	6,360	-	0.76
	Total	AM	3,225	6,237	3,013	93%	1,960	2,345	385	20%	3,315	3,931	615	19%	8,500	12,513	4,013	47%	14,860	-	0.84
		IP	3,718	5,658	1,940	52%	1,079	1,151	72	7%	3,588	3,739	151	4%	8,384	10,548	2,164	26%	14,860	-	0.71
		PM	4,857	8,107	3,250	67%	1,329	1,432	103	8%	2,314	2,433	119	5%	8,500	11,972	3,472	41%	14,860	-	0.81
NB	Dartford*	AM	3,620	3,644	24	1%	1,724	1,283	-441	-26%	2,592	1,884	-708	-27%	7,935	6,811	-1,124	-14%	6,981	1.14	0.98
		IP	3,137	3,332	195	6%	1,120	879	-242	-22%	3,588	2,605	-984	-27%	7,845	6,815	-1,030	-13%	6,890	1.14	0.99
		PM	4,566	4,321	-245	-5%	1,197	1,018	-179	-15%	2,073	1,543	-530	-26%	7,836	6,882	-954	-12%	6,762	1.16	1.02
	LTC	AM	0	3,422	-	-	0	719	-	-	0	1,204	-	-	0	5,346	-	-	6,360	-	0.84
		IP	0	2,746	-	-	0	438	-	-	0	1,589	-	-	0	4,773	-	-	6,360	-	0.75
		PM	0	3,288	-	-	0	300	-	-	0	795	-	-	0	4,384	-	-	6,360	-	0.69
	Total	AM	3,620	7,066	3,446	95%	1,724	2,002	279	16%	2,592	3,088	496	19%	7,935	12,157	4,221	53%	13,341	-	0.91
		IP	3,137	6,078	2,941	94%	1,120	1,316	196	18%	3,588	4,193	605	17%	7,845	11,588	3,743	48%	13,250	-	0.87
		PM	4,566	7,610	3,044	67%	1,197	1,319	122	10%	2,073	2,338	265	13%	7,836	11,266	3,430	44%	13,122	-	0.86

\* Flows are extracted for the link approaching the TMC

**Table D.194 Cross River Traffic Flows (NB Flows After TMC) – 2051 High Growth DM Vs DS (Hourly Flows in PCUs)**

Direction	Crossing	Time Period	Cars				LGV				HGV				Total				Effective Capacity	Link V/C Ratio	
			DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %	DM	DS	Diff	Diff %		DM	DS
SB	Dartford	AM	3,225	3,706	482	15%	1,960	1,947	-13	-1%	3,315	2,847	-468	-14%	8,500	8,500	0	0%	8,500	1.00	1.00
		IP	3,718	3,462	-256	-7%	1,079	919	-160	-15%	3,588	2,583	-1,004	-28%	8,384	6,964	-1,420	-17%	8,500	0.99	0.82
		PM	4,857	4,443	-414	-9%	1,329	1,043	-286	-22%	2,314	1,630	-684	-30%	8,500	7,115	-1,385	-16%	8,500	1.00	0.84
	LTC	AM	0	2,531	-	-	0	399	-	-	0	1,083	-	-	0	4,013	-	-	6,360	-	0.63
		IP	0	2,196	-	-	0	232	-	-	0	1,156	-	-	0	3,584	-	-	6,360	-	0.56
		PM	0	3,664	-	-	0	389	-	-	0	803	-	-	0	4,857	-	-	6,360	-	0.76
	Total	AM	3,225	6,237	3,013	93%	1,960	2,345	385	20%	3,315	3,931	615	19%	8,500	12,513	4,013	47%	14,860	-	0.84
		IP	3,718	5,658	1,940	52%	1,079	1,151	72	7%	3,588	3,739	151	4%	8,384	10,548	2,164	26%	14,860	-	0.71
		PM	4,857	8,107	3,250	67%	1,329	1,432	103	8%	2,314	2,433	119	5%	8,500	11,972	3,472	41%	14,860	-	0.81
NB	Dartford*	AM	3,195	3,644	449	14%	1,520	1,283	-237	-16%	2,267	1,884	-383	-17%	6,981	6,811	-170	-2%	6,981	1.00	0.98
		IP	2,756	3,323	567	21%	985	876	-108	-11%	3,149	2,595	-554	-18%	6,890	6,794	-96	-1%	6,890	1.00	0.99
		PM	3,940	4,246	306	8%	1,034	1,001	-32	-3%	1,789	1,514	-274	-15%	6,762	6,762	0	0%	6,762	1.00	1.00
	LTC	AM	0	3,422	-	-	0	719	-	-	0	1,204	-	-	0	5,346	-	-	6,360	-	0.84
		IP	0	2,746	-	-	0	438	-	-	0	1,589	-	-	0	4,773	-	-	6,360	-	0.75
		PM	0	3,288	-	-	0	300	-	-	0	795	-	-	0	4,384	-	-	6,360	-	0.69
	Total	AM	3,195	7,066	3,871	121%	1,520	2,002	483	32%	2,267	3,088	821	36%	6,981	12,157	5,175	74%	13,341	-	0.91
		IP	2,756	6,069	3,313	120%	985	1,314	330	33%	3,149	4,184	1,035	33%	6,890	11,567	4,677	68%	13,250	-	0.87
		PM	3,940	7,534	3,595	91%	1,034	1,302	268	26%	1,789	2,309	521	29%	6,762	11,145	4,384	65%	13,122	-	0.85

\* Flows are extracted for the link after the TMC

D.9.9 The movements considered critical to understanding the impacts of the scheme are the same as those described in Chapter 8 of the main document. Table D.195 provides a comparison of the flows at these strategic locations between the DM and DS in each time period.

**Table D.195 Key Corridor Traffic Flows – 2051 High Growth DM Vs DS (Hourly Flows in PCUs)**

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
A	M25 J29 to M25 J28 (NB)	AM	8,005	9,180	0.87	9,176	9,180	1.00	1,171	15%
		IP	7,456	9,180	0.81	8,770	9,180	0.96	1,314	18%
		PM	7,453	9,180	0.81	8,637	9,180	0.94	1,184	16%
	M25 J28 to M25 J29 (SB)	AM	7,996	9,115	0.88	8,175	9,180	0.89	179	2%
		IP	8,168	9,115	0.90	8,489	9,180	0.92	321	4%
		PM	8,307	9,115	0.91	8,647	9,180	0.94	340	4%
B	M25 J4 to M25 J3 (NB)	AM	6,002	6,850	0.88	6,147	6,850	0.90	145	2%
		IP	6,238	6,850	0.91	6,405	6,850	0.94	168	3%
		PM	6,674	6,850	0.97	6,773	6,850	0.99	99	1%
	M25 J3 to M25 J4 (SB)	AM	6,844	6,850	1.00	6,844	6,850	1.00	1	0%
		IP	6,032	6,850	0.88	6,225	6,850	0.91	193	3%
		PM	6,115	6,850	0.89	6,526	6,850	0.95	411	7%
C	A13 A126 to A1012 (EB)	AM	5,230	6,306	0.83	4,522	6,289	0.72	-708	-14%
		IP	5,488	6,297	0.87	4,816	6,271	0.77	-672	-12%
		PM	5,764	6,268	0.92	5,740	6,233	0.92	-24	0%
	A13 A1012 to A126 (WB)	AM	6,185	6,360	0.97	5,551	6,360	0.87	-634	-10%
		IP	5,964	6,360	0.94	5,010	6,360	0.79	-954	-16%
		PM	6,059	6,360	0.95	5,039	6,360	0.79	-1,020	-17%
D	A13 Orsett Cock to Manor Way (EB)	AM	5,251	6,370	0.82	5,812	6,370	0.91	561	11%
		IP	4,701	6,370	0.74	5,526	6,370	0.87	825	18%
		PM	5,276	6,370	0.83	6,097	6,370	0.96	821	16%
	A13 Manor Way to Orsett Cock (WB)	AM	5,559	6,220	0.89	5,869	6,220	0.94	311	6%
		IP	4,806	6,220	0.77	5,520	6,220	0.89	714	15%
		PM	5,270	6,220	0.85	5,878	6,220	0.95	608	12%

Location	Location Description	Time Period	DM			DS			Flow Differences	
			Flow	Effective Capacity	V/C	Flow	Effective Capacity	V/C	Diff	Diff %
E	A2 A227 to Gravesend East (EB)	AM	6,855	9,223	0.74	5,901	9,218	0.64	-953	-14%
		IP	7,272	9,182	0.79	6,160	9,176	0.67	-1,112	-15%
		PM	9,079	9,182	0.99	8,899	9,161	0.97	-181	-2%
	A2 Gravesend East to A227 (WB)	AM	7,257	7,284	1.00	6,676	6,985	0.96	-581	-8%
		IP	6,485	7,058	0.92	5,673	6,857	0.83	-811	-13%
		PM	6,406	6,783	0.94	5,935	6,658	0.89	-471	-7%
F	M2 J1 to M2 J2 (EB)	AM	6,263	8,569	0.73	7,100	8,432	0.84	837	13%
		IP	5,556	8,694	0.64	6,354	8,619	0.74	798	14%
		PM	6,897	8,659	0.80	8,061	8,445	0.95	1,164	17%
	M2 J2 to M2 J1 (WB)	AM	6,669	8,825	0.76	7,886	8,574	0.92	1,217	18%
		IP	4,981	8,864	0.56	6,888	8,657	0.80	1,907	38%
		PM	5,935	8,933	0.66	6,889	8,778	0.78	955	16%
G	M20 J3 to M20 J4 (EB)	AM	7,011	9,115	0.77	6,657	9,115	0.73	-354	-5%
		IP	7,066	9,115	0.78	6,686	9,115	0.73	-380	-5%
		PM	8,843	9,115	0.97	8,788	9,115	0.96	-55	-1%
	M20 J4 to M20 J3 (WB)	AM	9,024	9,115	0.99	8,510	9,115	0.93	-513	-6%
		IP	6,959	9,115	0.76	5,764	9,115	0.63	-1,196	-17%
		PM	6,785	9,115	0.74	5,977	9,115	0.66	-808	-12%

## DM Vs DS Journey Time Comparisons

- D.9.10 The same link based and route based journey time comparisons introduced under Chapter 8 of the main document are repeated for this year scenario combination.
- D.9.11 The link based journey time comparisons for this scenario are presented in Table D.196 to Table D.198.
- D.9.12 Table D.199 to Table D.204 provide the with and without scheme journey distances, times and average speeds for a selection of these movements for southbound and northbound movements.

**Table D.196 Link Based Journey Time Scenario Comparison (2051 High Growth DM Vs DS) AM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance	Time	Av Speed
M25 clockwise	A to B	M25 J26	M25 J29	23.5	18.7	75.3	23.5	19.0	74.3	0.0	0.3	-1.1	-0.1%	1.3%	-1.4%
	B to D	M25 J29	M25 J2	18.8	23.8	47.4	18.9	18.5	61.3	0.1	-5.4	14.0	0.3%	-22.5%	29.4%
	D to F	M25 J2	M25 J7	37.7	34.0	66.7	37.7	36.4	62.3	0.0	2.4	-4.4	0.0%	7.1%	-6.6%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	28.7	79.4	38.0	29.1	78.4	0.0	0.4	-1.0	0.0%	1.3%	-1.3%
	D to B	M25 J2	M25 J29	18.7	23.3	48.1	18.8	16.3	69.2	0.1	-7.0	21.2	0.6%	-30.1%	44.0%
	B to A	M25 J29	M25 J26	23.2	18.7	74.5	23.1	22.1	62.7	-0.1	3.5	-11.8	-0.3%	18.5%	-15.8%
A13 EB	C to G	M25 J30	A1089	5.2	5.5	56.6	5.3	4.5	70.6	0.0	-1.1	14.0	0.9%	-19.0%	24.6%
	G to H	A1089	A130	15.7	14.2	66.6	15.7	15.3	61.3	-0.1	1.2	-5.3	-0.4%	8.2%	-8.0%
A13 WB	H to G	A130	A1089	15.3	16.6	55.2	15.2	19.3	47.2	-0.1	2.7	-8.0	-0.7%	16.2%	-14.5%
	G to C	A1089	M25 J30	5.5	10.4	31.8	5.6	6.2	53.7	0.1	-4.1	21.9	1.6%	-39.8%	68.7%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	9.7	94.1	15.3	9.2	100.1	0.1	-0.5	5.9	0.5%	-5.5%	6.3%
	I to J	M2 J1	M2 J4	14.7	8.9	99.2	14.7	9.7	91.1	0.0	0.8	-8.0	0.0%	8.8%	-8.1%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	9.8	93.2	15.1	11.0	82.6	-0.1	1.2	-10.6	-0.7%	12.1%	-11.4%
	I to D	M2 J1	M25 J2	14.8	22.6	39.1	14.8	14.9	59.9	0.1	-7.8	20.7	0.6%	-34.2%	53.0%
M20 EB	E to K	M25 J3	M20 J8	35.3	21.6	97.9	35.3	21.2	100.0	0.0	-0.4	2.1	0.0%	-2.1%	2.1%
M20 WB	K to E	M20 J8	M25 J3	35.3	28.9	73.2	35.3	26.2	80.8	0.0	-2.7	7.5	0.0%	-9.3%	10.3%

**Table D.197 Link Based Journey Time Scenario Comparison (2051 High Growth DM Vs DS) Inter Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance	Time	Av Speed
M25 clockwise	A to B	M25 J26	M25 J29	23.5	19.1	74.1	23.5	19.6	71.9	0.0	0.6	-2.2	-0.1%	3.0%	-3.0%
	B to D	M25 J29	M25 J2	18.8	16.9	66.8	18.9	13.7	82.9	0.1	-3.2	16.1	0.3%	-19.2%	24.0%
	D to F	M25 J2	M25 J7	37.7	29.5	76.9	37.7	29.8	76.0	0.0	0.4	-0.9	0.0%	1.2%	-1.2%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	29.9	76.3	38.0	31.2	73.0	0.0	1.3	-3.2	0.0%	4.4%	-4.2%
	D to B	M25 J2	M25 J29	18.7	23.7	47.4	18.8	15.0	75.1	0.1	-8.6	27.6	0.6%	-36.4%	58.3%
	B to A	M25 J29	M25 J26	23.2	15.8	88.0	23.1	18.4	75.5	-0.1	2.6	-12.5	-0.3%	16.2%	-14.2%
A13 EB	C to G	M25 J30	A1089	5.2	6.1	51.4	5.3	4.9	64.8	0.0	-1.2	13.4	0.9%	-20.0%	26.2%
	G to H	A1089	A130	15.7	12.6	75.0	15.7	13.8	67.9	-0.1	1.3	-7.1	-0.4%	10.1%	-9.5%
A13 WB	H to G	A130	A1089	15.3	13.1	69.8	15.2	14.3	63.7	-0.1	1.2	-6.1	-0.7%	8.8%	-8.7%
	G to C	A1089	M25 J30	5.5	7.7	42.8	5.6	5.5	61.4	0.1	-2.3	18.6	1.6%	-29.2%	43.5%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	10.1	90.6	15.3	9.2	100.3	0.1	-0.9	9.7	0.5%	-9.2%	10.7%
	I to J	M2 J1	M2 J4	14.7	8.7	101.8	14.7	8.9	99.0	0.0	0.3	-2.9	0.0%	2.9%	-2.8%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	8.7	104.4	15.1	9.3	97.1	-0.1	0.6	-7.4	-0.7%	6.9%	-7.1%
	I to D	M2 J1	M25 J2	14.8	13.6	65.3	14.8	10.2	87.3	0.1	-3.4	22.1	0.6%	-24.8%	33.8%
M20 EB	E to K	M25 J3	M20 J8	35.3	21.5	98.8	35.3	21.1	100.6	0.0	-0.4	1.8	0.0%	-1.8%	1.8%
M20 WB	K to E	M20 J8	M25 J3	35.3	21.3	99.4	35.3	20.6	103.0	0.0	-0.8	3.6	0.0%	-3.5%	3.6%

**Table D.198 Link Based Journey Time Scenario Comparison (2051 High Growth DM Vs DS) PM Peak**

Road	Movement	From	To	Do-Minimum			Do-Something			Difference			Difference (%)		
				Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance (km)	Time (mins)	Av Speed (kph)	Distance	Time	Av Speed
M25 clockwise	A to B	M25 J26	M25 J29	23.5	20.2	70.0	23.5	20.9	67.3	0.0	0.8	-2.6	-0.1%	3.8%	-3.8%
	B to D	M25 J29	M25 J2	18.8	19.0	59.3	18.9	14.6	77.4	0.1	-4.4	18.1	0.3%	-23.2%	30.6%
	D to F	M25 J2	M25 J7	37.7	26.2	86.5	37.7	27.3	82.9	0.0	1.1	-3.6	0.0%	4.3%	-4.2%
M25 Anti-clockwise	F to D	M25 J7	M25 J2	38.0	35.6	64.0	38.0	36.2	62.9	0.0	0.6	-1.1	0.0%	1.7%	-1.7%
	D to B	M25 J2	M25 J29	18.7	21.1	53.1	18.8	15.5	72.7	0.1	-5.6	19.6	0.6%	-26.5%	36.8%
	B to A	M25 J29	M25 J26	23.2	15.4	90.6	23.1	17.2	80.6	-0.1	1.9	-10.1	-0.3%	12.1%	-11.1%
A13 EB	C to G	M25 J30	A1089	5.2	9.6	32.5	5.3	6.1	51.5	0.0	-3.5	19.0	0.9%	-36.3%	58.4%
	G to H	A1089	A130	15.7	13.7	68.7	15.7	15.8	59.5	-0.1	2.1	-9.3	-0.4%	15.2%	-13.5%
A13 WB	H to G	A130	A1089	15.3	13.7	66.8	15.2	15.2	59.8	-0.1	1.5	-6.9	-0.7%	10.8%	-10.4%
	G to C	A1089	M25 J30	5.5	8.7	38.1	5.6	5.6	59.9	0.1	-3.1	21.9	1.6%	-35.5%	57.4%
A2/M2 EB	D to I	M25 J2	M2 J1	15.3	15.8	58.2	15.3	12.2	75.6	0.1	-3.6	17.4	0.5%	-22.6%	29.9%
	I to J	M2 J1	M2 J4	14.7	10.2	86.6	14.7	13.8	63.7	0.0	3.7	-23.0	0.0%	36.1%	-26.5%
A2/M2 WB	J to I	M2 J4	M2 J1	15.2	9.2	99.1	15.1	9.6	94.2	-0.1	0.4	-4.9	-0.7%	4.5%	-5.0%
	I to D	M2 J1	M25 J2	14.8	17.0	52.0	14.8	12.4	71.8	0.1	-4.6	19.9	0.6%	-27.2%	38.2%
M20 EB	E to K	M25 J3	M20 J8	35.3	28.0	75.7	35.3	27.4	77.3	0.0	-0.6	1.6	0.0%	-2.0%	2.1%
M20 WB	K to E	M20 J8	M25 J3	35.3	21.7	97.7	35.3	21.1	100.5	0.0	-0.6	2.9	0.0%	-2.8%	2.9%



**Table D.199 Route Based Journey Time Comparison North to South Movements (2051 High Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
1 to 7	Cheshunt	Bexley	61.9	72.5	51.2	62.0	70.5	52.8	0.1	-2.0	1.6	0.2%	-2.8%	3.1%
1 to 8	Cheshunt	Godstone	91.5	93.3	58.9	91.6	90.9	60.5	0.0	-2.4	1.6	0.0%	-2.6%	2.7%
1 to 9	Cheshunt	Southfleet	62.1	66.6	55.9	62.2	61.4	60.8	0.1	-5.2	4.9	0.2%	-7.9%	8.7%
1 to 10	Cheshunt	Maidstone	88.2	85.3	62.1	83.2	80.6	62.0	-5.0	-4.7	-0.1	-5.6%	-5.5%	-0.1%
1 to 11	Cheshunt	Rochester	74.5	86.0	51.9	70.4	72.0	58.7	-4.0	-14.1	6.8	-5.4%	-16.4%	13.1%
1 to 12	Cheshunt	Rainham	91.5	91.7	59.9	87.4	78.5	66.8	-4.1	-13.1	6.9	-4.5%	-14.3%	11.5%
2 to 7	Romford	Bexley	32.2	62.7	30.8	36.0	56.9	38.0	3.8	-5.8	7.2	11.9%	-9.2%	23.2%
2 to 8	Romford	Godstone	61.9	83.5	44.5	65.6	77.3	50.9	3.7	-6.2	6.4	6.0%	-7.4%	14.5%
2 to 9	Romford	Southfleet	32.4	56.8	34.3	36.3	47.8	45.5	3.8	-9.0	11.2	11.8%	-15.8%	32.8%
2 to 10	Romford	Maidstone	58.5	75.5	46.5	57.3	67.0	51.3	-1.2	-8.5	4.8	-2.1%	-11.2%	10.2%
2 to 11	Romford	Rochester	44.8	76.2	35.3	44.5	58.4	45.7	-0.3	-17.8	10.4	-0.7%	-23.4%	29.6%
2 to 12	Romford	Rainham	61.8	81.8	45.3	61.4	64.9	56.7	-0.4	-16.9	11.4	-0.6%	-20.6%	25.2%
3 to 7	Brentwood	Bexley	33.0	51.5	38.5	33.0	47.5	41.7	0.0	-3.9	3.2	0.0%	-7.7%	8.3%
3 to 8	Brentwood	Godstone	62.7	72.2	52.1	62.6	67.9	55.3	-0.1	-4.3	3.2	-0.1%	-6.0%	6.2%
3 to 9	Brentwood	Southfleet	33.2	45.6	43.8	33.2	38.4	51.9	0.0	-7.2	8.2	0.0%	-15.7%	18.6%
3 to 10	Brentwood	Maidstone	59.3	64.2	55.4	54.3	57.6	56.5	-5.1	-6.6	1.1	-8.6%	-10.3%	2.0%
3 to 11	Brentwood	Rochester	45.6	65.0	42.1	41.5	49.0	50.8	-4.2	-16.0	8.7	-9.1%	-24.6%	20.5%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
3 to 12	Brentwood	Rainham	62.6	70.6	53.2	58.4	55.6	63.1	-4.2	-15.1	9.9	-6.7%	-21.3%	18.6%
4 to 7	Basildon	Bexley	39.7	65.0	36.7	39.7	60.3	39.5	0.0	-4.7	2.9	0.0%	-7.3%	7.8%
4 to 8	Basildon	Godstone	69.4	85.8	48.5	69.3	80.7	51.5	-0.1	-5.1	3.0	-0.1%	-5.9%	6.2%
4 to 9	Basildon	Southfleet	40.0	59.1	40.5	35.0	45.6	46.0	-5.0	-13.5	5.5	-12.4%	-22.9%	13.5%
4 to 10	Basildon	Maidstone	66.0	77.8	51.0	49.3	65.2	45.3	-16.8	-12.6	-5.6	-25.4%	-16.2%	-11.0%
4 to 11	Basildon	Rochester	52.3	78.5	40.0	36.7	56.6	39.0	-15.6	-22.0	-1.0	-29.8%	-28.0%	-2.5%
4 to 12	Basildon	Rainham	69.3	84.2	49.4	53.7	63.1	51.0	-15.6	-21.0	1.6	-22.6%	-25.0%	3.2%
5 to 7	Tilbury Port	Bexley	28.3	57.9	29.3	28.4	48.9	34.9	0.1	-9.1	5.6	0.4%	-15.7%	19.0%
5 to 8	Tilbury Port	Godstone	58.0	78.7	44.2	58.0	69.2	50.3	0.0	-9.4	6.0	0.0%	-12.0%	13.7%
5 to 9	Tilbury Port	Southfleet	28.5	52.0	32.9	27.7	32.8	50.7	-0.8	-19.2	17.7	-2.9%	-36.9%	53.9%
5 to 10	Tilbury Port	Maidstone	54.6	70.7	46.4	42.0	52.4	48.1	-12.6	-18.3	1.7	-23.2%	-25.8%	3.6%
5 to 11	Tilbury Port	Rochester	40.9	71.5	34.4	29.5	43.8	40.4	-11.5	-27.7	6.0	-28.0%	-38.7%	17.5%
5 to 12	Tilbury Port	Rainham	57.9	77.1	45.1	46.4	50.3	55.3	-11.5	-26.7	10.2	-19.9%	-34.7%	22.7%
6 to 7	DP World	Bexley	32.1	53.2	36.2	32.2	47.9	40.3	0.1	-5.3	4.1	0.2%	-9.9%	11.2%
6 to 8	DP World	Godstone	61.8	73.9	50.1	61.8	68.3	54.3	0.0	-5.6	4.1	0.0%	-7.6%	8.2%
6 to 9	DP World	Southfleet	32.3	47.3	41.0	29.0	29.0	60.0	-3.3	-18.2	18.9	-10.2%	-38.6%	46.2%
6 to 10	DP World	Maidstone	58.4	65.9	53.2	43.3	48.6	53.4	-15.1	-17.3	0.2	-25.9%	-26.2%	0.5%
6 to 11	DP World	Rochester	44.7	66.7	40.2	30.8	40.0	46.2	-13.9	-26.7	5.9	-31.2%	-40.0%	14.8%
6 to 12	DP World	Rainham	61.7	72.3	51.2	47.7	46.6	61.5	-14.0	-25.8	10.3	-22.7%	-35.6%	20.1%

**Table D.200 Route Based Journey Time Comparison North to South Movements (2051 High Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
1 to 7	Cheshunt	Bexley	61.8	58.9	63.0	61.8	56.9	65.2	0.0	-2.0	2.2	0.0%	-3.4%	3.5%
1 to 8	Cheshunt	Godstone	91.5	78.0	70.4	91.5	75.7	72.5	0.0	-2.2	2.1	0.0%	-2.9%	3.0%
1 to 9	Cheshunt	Southfleet	62.1	56.2	66.4	62.2	52.7	70.7	0.0	-3.4	4.4	0.0%	-6.1%	6.6%
1 to 10	Cheshunt	Maidstone	88.2	74.0	71.5	82.9	69.0	72.0	-5.3	-4.9	0.5	-6.0%	-6.6%	0.7%
1 to 11	Cheshunt	Rochester	74.5	71.0	63.0	70.3	62.9	67.0	-4.2	-8.0	4.0	-5.6%	-11.3%	6.4%
1 to 12	Cheshunt	Rainham	91.4	80.3	68.3	87.3	72.1	72.7	-4.1	-8.2	4.4	-4.5%	-10.2%	6.4%
2 to 7	Romford	Bexley	35.6	47.7	44.8	35.6	42.8	49.9	0.0	-4.9	5.1	0.0%	-10.3%	11.4%
2 to 8	Romford	Godstone	65.3	66.8	58.7	65.3	61.6	63.6	0.0	-5.1	4.9	0.0%	-7.7%	8.4%
2 to 9	Romford	Southfleet	35.9	45.0	47.9	35.9	38.7	55.7	0.0	-6.3	7.9	0.0%	-14.1%	16.4%
2 to 10	Romford	Maidstone	61.9	62.8	59.2	56.6	55.0	61.8	-5.3	-7.8	2.6	-8.6%	-12.4%	4.4%
2 to 11	Romford	Rochester	48.2	59.8	48.4	44.0	48.9	54.1	-4.2	-10.9	5.6	-8.7%	-18.2%	11.6%
2 to 12	Romford	Rainham	65.2	69.1	56.6	61.1	58.0	63.2	-4.1	-11.1	6.6	-6.3%	-16.1%	11.7%
3 to 7	Brentwood	Bexley	33.0	38.3	51.8	32.9	35.4	55.8	-0.1	-2.9	4.0	-0.3%	-7.5%	7.8%
3 to 8	Brentwood	Godstone	62.7	57.3	65.6	62.6	54.2	69.3	-0.1	-3.1	3.7	-0.1%	-5.4%	5.6%
3 to 9	Brentwood	Southfleet	33.3	35.5	56.3	33.2	31.2	63.9	-0.1	-4.3	7.6	-0.3%	-12.1%	13.5%
3 to 10	Brentwood	Maidstone	59.3	53.3	66.8	53.9	47.5	68.1	-5.4	-5.8	1.3	-9.1%	-10.9%	1.9%
3 to 11	Brentwood	Rochester	45.7	50.3	54.5	41.4	41.4	59.9	-4.3	-8.9	5.4	-9.4%	-17.6%	10.0%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
3 to 12	Brentwood	Rainham	62.6	59.7	62.9	58.4	50.6	69.3	-4.2	-9.1	6.3	-6.7%	-15.2%	10.1%
4 to 7	Basildon	Bexley	39.7	43.7	54.5	39.6	40.3	59.0	-0.1	-3.4	4.5	-0.3%	-7.8%	8.2%
4 to 8	Basildon	Godstone	69.4	62.8	66.3	69.3	59.1	70.3	-0.1	-3.7	4.0	-0.1%	-5.8%	6.1%
4 to 9	Basildon	Southfleet	40.0	41.0	58.6	33.8	31.8	63.7	-6.3	-9.2	5.1	-15.7%	-22.4%	8.7%
4 to 10	Basildon	Maidstone	66.1	58.8	67.4	48.0	46.4	62.0	-18.1	-12.4	-5.4	-27.4%	-21.1%	-8.0%
4 to 11	Basildon	Rochester	52.4	55.8	56.3	35.4	40.3	52.7	-17.0	-15.5	-3.6	-32.4%	-27.7%	-6.5%
4 to 12	Basildon	Rainham	69.3	65.2	63.8	52.4	49.5	63.6	-16.9	-15.7	-0.2	-24.4%	-24.1%	-0.3%
5 to 7	Tilbury Port	Bexley	28.3	34.5	49.3	28.3	30.4	56.0	0.0	-4.2	6.7	0.0%	-12.0%	13.6%
5 to 8	Tilbury Port	Godstone	58.0	53.6	65.0	58.0	49.2	70.8	0.0	-4.4	5.8	0.0%	-8.2%	8.9%
5 to 9	Tilbury Port	Southfleet	28.6	31.8	54.0	27.7	20.8	80.0	-0.9	-11.0	26.0	-3.2%	-34.6%	48.0%
5 to 10	Tilbury Port	Maidstone	54.6	49.6	66.1	41.9	35.4	71.1	-12.7	-14.2	5.0	-23.3%	-28.6%	7.5%
5 to 11	Tilbury Port	Rochester	41.0	46.6	52.8	29.4	29.3	60.1	-11.6	-17.3	7.4	-28.4%	-37.1%	13.9%
5 to 12	Tilbury Port	Rainham	57.9	55.9	62.1	46.4	38.4	72.4	-11.5	-17.5	10.3	-19.9%	-31.3%	16.6%
6 to 7	DP World	Bexley	32.1	38.1	50.6	32.1	34.3	56.1	0.0	-3.8	5.6	-0.1%	-10.0%	11.0%
6 to 8	DP World	Godstone	61.8	57.2	64.8	61.8	53.1	69.8	0.0	-4.1	4.9	0.0%	-7.1%	7.6%
6 to 9	DP World	Southfleet	32.4	35.4	55.0	29.0	23.2	75.2	-3.4	-12.2	20.3	-10.4%	-34.6%	36.9%
6 to 10	DP World	Maidstone	58.4	53.2	65.9	43.2	37.7	68.7	-15.2	-15.4	2.8	-26.0%	-29.0%	4.3%
6 to 11	DP World	Rochester	44.8	50.2	53.5	30.7	31.6	58.2	-14.1	-18.5	4.6	-31.5%	-36.9%	8.6%
6 to 12	DP World	Rainham	61.7	59.5	62.2	47.7	40.8	70.2	-14.0	-18.8	8.0	-22.7%	-31.5%	12.9%

**Table D.201 Route Based Journey Time Comparison North to South Movements (2051 High Growth DM Vs DS) PM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
1 to 7	Cheshunt	Bexley	61.8	69.0	53.8	61.9	66.4	55.9	0.0	-2.6	2.1	0.0%	-3.8%	4.0%
1 to 8	Cheshunt	Godstone	91.5	82.9	66.3	91.5	80.5	68.3	0.0	-2.4	2.0	0.0%	-2.9%	3.0%
1 to 9	Cheshunt	Southfleet	60.7	64.3	56.7	62.2	59.0	63.2	1.4	-5.2	6.4	2.3%	-8.1%	11.4%
1 to 10	Cheshunt	Maidstone	88.2	86.1	61.4	82.9	81.4	61.1	-5.3	-4.7	-0.4	-6.0%	-5.5%	-0.6%
1 to 11	Cheshunt	Rochester	74.7	86.8	51.7	70.6	75.1	56.4	-4.1	-11.7	4.7	-5.5%	-13.4%	9.1%
1 to 12	Cheshunt	Rainham	91.4	103.6	52.9	87.3	92.6	56.6	-4.1	-11.0	3.6	-4.5%	-10.6%	6.8%
2 to 7	Romford	Bexley	38.5	59.8	38.7	36.1	54.1	40.0	-2.4	-5.6	1.3	-6.3%	-9.4%	3.5%
2 to 8	Romford	Godstone	68.2	73.6	55.6	65.8	68.2	57.8	-2.4	-5.4	2.3	-3.5%	-7.3%	4.1%
2 to 9	Romford	Southfleet	37.4	55.0	40.8	36.4	46.8	46.7	-1.0	-8.2	5.9	-2.7%	-14.9%	14.3%
2 to 10	Romford	Maidstone	64.9	76.9	50.6	57.1	69.2	49.5	-7.7	-7.7	-1.1	-11.9%	-10.0%	-2.2%
2 to 11	Romford	Rochester	51.4	77.5	39.8	44.8	62.9	42.8	-6.6	-14.6	3.0	-12.8%	-18.9%	7.5%
2 to 12	Romford	Rainham	68.1	94.4	43.3	61.6	80.4	45.9	-6.5	-14.0	2.6	-9.6%	-14.8%	6.1%
3 to 7	Brentwood	Bexley	33.0	49.1	40.3	32.9	43.8	45.1	-0.1	-5.3	4.8	-0.3%	-10.8%	11.8%
3 to 8	Brentwood	Godstone	62.7	63.0	59.7	62.6	57.9	64.8	-0.1	-5.1	5.2	-0.1%	-8.1%	8.6%
3 to 9	Brentwood	Southfleet	31.9	44.4	43.1	33.2	36.5	54.6	1.3	-7.9	11.5	4.1%	-17.8%	26.7%
3 to 10	Brentwood	Maidstone	59.3	66.3	53.7	53.9	58.9	54.9	-5.4	-7.4	1.2	-9.1%	-11.1%	2.3%
3 to 11	Brentwood	Rochester	45.9	66.9	41.1	41.6	52.6	47.5	-4.2	-14.3	6.4	-9.2%	-21.4%	15.5%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
3 to 12	Brentwood	Rainham	62.6	83.8	44.8	58.4	70.1	50.0	-4.2	-13.7	5.1	-6.7%	-16.3%	11.4%
4 to 7	Basildon	Bexley	36.8	52.4	42.2	39.6	50.7	46.9	2.8	-1.7	4.7	7.6%	-3.2%	11.1%
4 to 8	Basildon	Godstone	66.5	66.2	60.3	69.3	64.8	64.2	2.8	-1.4	3.9	4.2%	-2.1%	6.5%
4 to 9	Basildon	Southfleet	35.7	47.6	45.0	33.8	35.9	56.4	-2.0	-11.7	11.4	-5.5%	-24.6%	25.4%
4 to 10	Basildon	Maidstone	63.2	69.5	54.5	48.0	56.8	50.7	-15.2	-12.7	-3.8	-24.1%	-18.3%	-7.0%
4 to 11	Basildon	Rochester	49.7	70.1	42.5	35.7	50.5	42.4	-14.0	-19.7	-0.1	-28.2%	-28.0%	-0.2%
4 to 12	Basildon	Rainham	66.4	87.0	45.8	52.4	68.0	46.3	-14.0	-19.0	0.5	-21.1%	-21.8%	1.0%
5 to 7	Tilbury Port	Bexley	28.3	41.2	41.2	28.3	36.8	46.2	0.0	-4.4	4.9	0.0%	-10.7%	12.0%
5 to 8	Tilbury Port	Godstone	58.0	55.1	63.2	58.0	50.9	68.4	0.0	-4.2	5.2	0.0%	-7.6%	8.2%
5 to 9	Tilbury Port	Southfleet	27.2	36.5	44.8	27.7	23.7	70.3	0.5	-12.8	25.5	1.9%	-35.1%	57.0%
5 to 10	Tilbury Port	Maidstone	54.6	58.3	56.2	41.9	44.5	56.5	-12.7	-13.8	0.3	-23.3%	-23.7%	0.5%
5 to 11	Tilbury Port	Rochester	41.2	59.0	41.9	29.6	38.2	46.5	-11.5	-20.7	4.6	-28.0%	-35.2%	11.0%
5 to 12	Tilbury Port	Rainham	57.9	75.8	45.8	46.4	55.7	49.9	-11.5	-20.1	4.1	-19.9%	-26.5%	8.9%
6 to 7	DP World	Bexley	32.1	45.2	42.6	32.1	44.0	43.8	0.0	-1.3	1.2	0.0%	-2.8%	2.8%
6 to 8	DP World	Godstone	61.8	59.1	62.7	61.8	58.1	63.8	0.0	-1.0	1.1	0.0%	-1.7%	1.7%
6 to 9	DP World	Southfleet	31.0	40.5	45.9	29.0	28.9	60.2	-2.0	-11.6	14.3	-6.3%	-28.5%	31.0%
6 to 10	DP World	Maidstone	58.4	62.4	56.2	43.2	49.8	52.1	-15.2	-12.5	-4.2	-26.0%	-20.1%	-7.4%
6 to 11	DP World	Rochester	45.0	63.0	42.8	31.0	43.5	42.7	-14.0	-19.5	-0.1	-31.2%	-30.9%	-0.3%
6 to 12	DP World	Rainham	61.7	79.8	46.4	47.7	61.0	46.9	-14.0	-18.8	0.5	-22.7%	-23.6%	1.2%

**Table D.202 Route Based Journey Time Comparison South to North Movements (2051 High Growth DM Vs DS) AM Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
7 to 1	Bexley	Cheshunt	61.6	65.5	56.4	61.6	61.5	60.1	0.0	-4.0	3.7	0.1%	-6.1%	6.5%
7 to 2	Bexley	Romford	34.8	50.6	41.2	33.5	44.3	45.4	-1.3	-6.3	4.1	-3.7%	-12.5%	10.0%
7 to 3	Bexley	Brentwood	33.1	46.3	43.0	32.7	40.3	48.6	-0.5	-6.0	5.6	-1.4%	-12.9%	13.1%
7 to 4	Bexley	Basildon	36.8	47.8	46.2	36.8	38.9	56.9	0.0	-8.9	10.6	0.0%	-18.7%	23.0%
7 to 5	Bexley	Tilbury Port	28.6	43.4	39.5	28.6	34.3	50.0	0.0	-9.1	10.5	0.0%	-20.9%	26.5%
7 to 6	Bexley	DP World	32.4	43.4	44.8	32.4	34.9	55.6	0.0	-8.4	10.8	0.0%	-19.4%	24.1%
8 to 1	Godstone	Cheshunt	91.6	89.3	61.5	91.7	86.0	63.9	0.1	-3.3	2.4	0.1%	-3.7%	4.0%
8 to 2	Godstone	Romford	64.8	74.5	52.2	63.5	68.8	55.4	-1.2	-5.7	3.2	-1.9%	-7.6%	6.2%
8 to 3	Godstone	Brentwood	63.2	70.1	54.0	62.7	64.9	58.0	-0.4	-5.3	4.0	-0.7%	-7.5%	7.4%
8 to 4	Godstone	Basildon	66.9	71.7	56.0	66.9	63.4	63.3	0.1	-8.3	7.3	0.1%	-11.5%	13.1%
8 to 5	Godstone	Tilbury Port	58.6	67.2	52.3	58.6	58.8	59.8	0.1	-8.4	7.5	0.1%	-12.5%	14.4%
8 to 6	Godstone	DP World	62.4	67.2	55.7	62.5	59.5	63.0	0.1	-7.8	7.3	0.1%	-11.5%	13.1%
9 to 1	Southfleet	Cheshunt	60.7	65.9	55.3	60.8	59.6	61.2	0.0	-6.3	5.9	0.1%	-9.6%	10.7%
9 to 2	Southfleet	Romford	33.9	51.0	39.9	32.6	42.3	46.2	-1.3	-8.7	6.3	-3.8%	-17.0%	15.9%
9 to 3	Southfleet	Brentwood	32.3	46.7	41.5	31.8	38.4	49.7	-0.5	-8.3	8.2	-1.5%	-17.8%	19.8%
9 to 4	Southfleet	Basildon	36.0	48.2	44.8	35.8	31.0	69.5	-0.1	-17.2	24.7	-0.4%	-35.7%	55.1%
9 to 5	Southfleet	Tilbury Port	27.7	43.8	38.0	31.4	30.1	62.6	3.7	-13.7	24.7	13.4%	-31.2%	64.9%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
9 to 6	Southfleet	DP World	31.5	43.7	43.2	31.4	27.0	69.7	-0.1	-16.7	26.4	-0.4%	-38.2%	61.2%
10 to 1	Maidstone	Cheshunt	88.3	91.7	57.8	83.3	83.2	60.1	-5.0	-8.5	2.3	-5.6%	-9.2%	4.0%
10 to 2	Maidstone	Romford	61.5	76.8	48.0	56.5	65.2	51.9	-5.0	-11.5	3.9	-8.1%	-15.0%	8.1%
10 to 3	Maidstone	Brentwood	59.8	72.5	49.5	54.3	61.5	53.0	-5.5	-11.0	3.5	-9.2%	-15.2%	7.0%
10 to 4	Maidstone	Basildon	63.5	74.0	51.5	50.3	51.9	58.1	-13.2	-22.0	6.6	-20.8%	-29.8%	12.9%
10 to 5	Maidstone	Tilbury Port	55.2	69.5	47.7	45.9	51.0	53.9	-9.4	-18.5	6.3	-16.9%	-26.6%	13.1%
10 to 6	Maidstone	DP World	59.1	69.5	51.0	45.9	48.0	57.4	-13.2	-21.5	6.4	-22.3%	-31.0%	12.5%
11 to 1	Rochester	Cheshunt	76.3	96.3	47.5	70.5	75.7	55.9	-5.8	-20.7	8.4	-7.6%	-21.4%	17.6%
11 to 2	Rochester	Romford	49.5	81.4	36.4	43.6	57.7	45.3	-5.8	-23.7	8.9	-11.8%	-29.1%	24.4%
11 to 3	Rochester	Brentwood	47.8	77.1	37.2	41.5	54.0	46.1	-6.4	-23.2	8.9	-13.3%	-30.0%	23.9%
11 to 4	Rochester	Basildon	51.5	78.6	39.3	37.5	44.4	50.6	-14.0	-34.2	11.3	-27.3%	-43.5%	28.8%
11 to 5	Rochester	Tilbury Port	43.2	74.2	35.0	33.0	43.5	45.5	-10.2	-30.7	10.6	-23.6%	-41.3%	30.2%
11 to 6	Rochester	DP World	47.1	74.2	38.1	33.0	40.5	49.0	-14.0	-33.7	10.9	-29.8%	-45.5%	28.6%
12 to 1	Rainham	Cheshunt	91.7	115.0	47.9	87.7	93.6	56.2	-4.0	-21.4	8.3	-4.4%	-18.6%	17.4%
12 to 2	Rainham	Romford	64.9	100.1	38.9	60.8	75.7	48.2	-4.1	-24.4	9.3	-6.3%	-24.4%	24.0%
12 to 3	Rainham	Brentwood	63.3	95.8	39.6	58.7	71.9	49.0	-4.6	-23.9	9.3	-7.2%	-24.9%	23.6%
12 to 4	Rainham	Basildon	67.0	97.3	41.3	54.7	62.4	52.6	-12.3	-34.9	11.3	-18.3%	-35.9%	27.4%
12 to 5	Rainham	Tilbury Port	58.7	92.9	37.9	50.2	61.5	49.0	-8.4	-31.4	11.1	-14.4%	-33.8%	29.3%
12 to 6	Rainham	DP World	62.5	92.8	40.4	50.2	58.4	51.6	-12.3	-34.4	11.2	-19.6%	-37.1%	27.7%



**Table D.203 Route Based Journey Time Comparison South to North Movements (2051 High Growth DM Vs DS) Inter Peak**

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
7 to 1	Bexley	Cheshunt	61.6	63.6	58.1	61.6	58.5	63.2	0.1	-5.1	5.1	0.1%	-8.0%	8.8%
7 to 2	Bexley	Romford	35.8	48.2	44.6	35.8	40.0	53.8	0.0	-8.2	9.2	0.0%	-17.1%	20.6%
7 to 3	Bexley	Brentwood	33.1	45.8	43.4	34.7	37.5	55.6	1.6	-8.4	12.2	4.7%	-18.2%	28.1%
7 to 4	Bexley	Basildon	36.8	49.9	44.3	36.8	40.2	55.0	0.0	-9.7	10.6	0.0%	-19.4%	24.0%
7 to 5	Bexley	Tilbury Port	31.9	45.9	41.7	31.9	35.9	53.4	0.0	-10.0	11.7	0.0%	-21.9%	28.1%
7 to 6	Bexley	DP World	32.4	45.0	43.2	32.4	35.7	54.5	0.0	-9.3	11.3	0.0%	-20.7%	26.1%
8 to 1	Godstone	Cheshunt	91.8	85.7	64.3	91.8	81.3	67.8	0.0	-4.4	3.5	0.1%	-5.1%	5.4%
8 to 2	Godstone	Romford	66.0	70.3	56.4	66.0	62.8	63.1	0.0	-7.5	6.7	0.0%	-10.7%	11.9%
8 to 3	Godstone	Brentwood	63.3	67.9	56.0	64.9	60.3	64.6	1.6	-7.6	8.6	2.5%	-11.2%	15.4%
8 to 4	Godstone	Basildon	67.0	71.9	55.9	67.0	63.0	63.8	0.0	-8.9	7.9	0.0%	-12.4%	14.1%
8 to 5	Godstone	Tilbury Port	62.1	67.9	54.8	62.1	58.6	63.5	0.0	-9.3	8.7	0.0%	-13.7%	15.9%
8 to 6	Godstone	DP World	62.6	67.0	56.0	62.6	58.5	64.2	0.0	-8.6	8.2	0.0%	-12.8%	14.6%
9 to 1	Southfleet	Cheshunt	60.7	62.4	58.4	60.8	55.1	66.1	0.0	-7.3	7.8	0.1%	-11.7%	13.3%
9 to 2	Southfleet	Romford	35.0	47.0	44.6	35.0	36.6	57.3	0.0	-10.4	12.7	0.0%	-22.1%	28.4%
9 to 3	Southfleet	Brentwood	32.3	44.6	43.4	33.8	34.1	59.5	1.6	-10.5	16.1	4.8%	-23.6%	37.2%
9 to 4	Southfleet	Basildon	36.0	48.7	44.3	35.8	30.4	70.7	-0.1	-18.3	26.4	-0.4%	-37.5%	59.5%
9 to 5	Southfleet	Tilbury Port	31.1	44.7	41.7	34.8	29.7	70.2	3.7	-15.0	28.5	12.0%	-33.5%	68.4%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
9 to 6	Southfleet	DP World	31.5	43.8	43.2	31.4	25.9	72.8	-0.1	-17.9	29.6	-0.4%	-40.9%	68.5%
10 to 1	Maidstone	Cheshunt	88.3	81.3	65.1	83.3	70.2	71.2	-5.0	-11.1	6.1	-5.6%	-13.7%	9.4%
10 to 2	Maidstone	Romford	62.5	65.9	56.9	57.5	51.5	67.0	-5.0	-14.4	10.1	-8.0%	-21.8%	17.7%
10 to 3	Maidstone	Brentwood	59.8	63.5	56.5	54.9	48.5	67.9	-4.9	-15.0	11.4	-8.3%	-23.7%	20.2%
10 to 4	Maidstone	Basildon	63.5	67.6	56.4	50.3	43.5	69.4	-13.2	-24.0	12.9	-20.8%	-35.6%	22.9%
10 to 5	Maidstone	Tilbury Port	58.6	63.6	55.3	49.2	42.9	69.0	-9.4	-20.7	13.7	-16.0%	-32.6%	24.7%
10 to 6	Maidstone	DP World	59.1	62.7	56.6	45.9	39.0	70.6	-13.2	-23.7	14.0	-22.3%	-37.8%	24.8%
11 to 1	Rochester	Cheshunt	74.5	83.0	53.8	70.3	66.5	63.4	-4.2	-16.5	9.6	-5.6%	-19.9%	17.8%
11 to 2	Rochester	Romford	48.7	67.6	43.2	44.5	47.9	55.7	-4.2	-19.7	12.5	-8.7%	-29.2%	29.0%
11 to 3	Rochester	Brentwood	46.0	65.2	42.3	41.9	44.9	56.0	-4.2	-20.4	13.7	-9.0%	-31.2%	32.3%
11 to 4	Rochester	Basildon	49.7	69.3	43.1	37.3	39.9	56.1	-12.4	-29.4	13.1	-25.0%	-42.4%	30.3%
11 to 5	Rochester	Tilbury Port	44.8	65.3	41.2	36.2	39.2	55.4	-8.6	-26.1	14.3	-19.1%	-40.0%	34.7%
11 to 6	Rochester	DP World	45.3	64.4	42.2	32.9	35.4	55.7	-12.4	-29.0	13.6	-27.4%	-45.1%	32.1%
12 to 1	Rainham	Cheshunt	91.7	92.1	59.7	87.7	75.4	69.7	-4.0	-16.7	10.0	-4.4%	-18.1%	16.8%
12 to 2	Rainham	Romford	65.9	76.7	51.6	61.8	56.8	65.4	-4.1	-20.0	13.8	-6.2%	-26.0%	26.8%
12 to 3	Rainham	Brentwood	63.3	74.4	51.0	59.2	53.7	66.1	-4.0	-20.6	15.1	-6.4%	-27.7%	29.6%
12 to 4	Rainham	Basildon	67.0	78.4	51.2	54.7	48.8	67.3	-12.3	-29.6	16.0	-18.3%	-37.8%	31.3%
12 to 5	Rainham	Tilbury Port	62.0	74.4	50.0	53.6	48.1	66.9	-8.4	-26.3	16.9	-13.6%	-35.4%	33.7%
12 to 6	Rainham	DP World	62.5	73.5	51.0	50.2	44.3	68.1	-12.3	-29.3	17.1	-19.6%	-39.8%	33.5%

**Table D.204 Route Based Journey Time Comparison South to North Movements (2051 High Growth DM Vs DS) PM Peak**

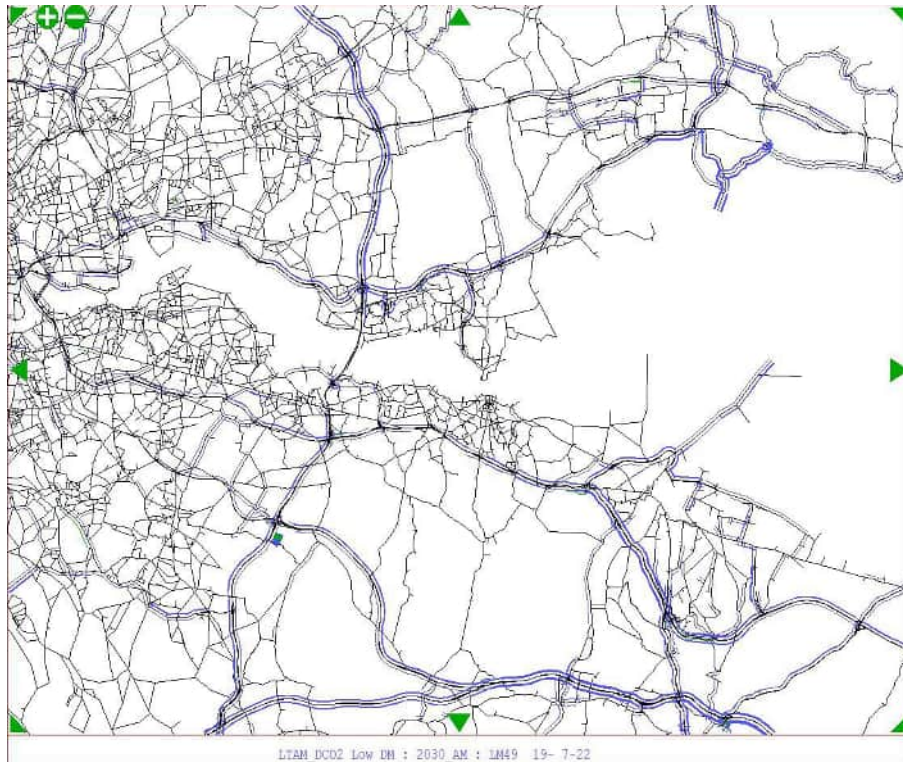
Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
7 to 1	Bexley	Cheshunt	61.6	67.3	54.9	61.6	64.3	57.5	0.0	-3.0	2.6	0.1%	-4.5%	4.8%
7 to 2	Bexley	Romford	34.8	52.7	39.6	34.8	46.2	45.1	0.0	-6.4	5.5	-0.1%	-12.2%	13.8%
7 to 3	Bexley	Brentwood	33.2	45.3	43.9	33.0	40.2	49.2	-0.2	-5.1	5.3	-0.5%	-11.2%	12.1%
7 to 4	Bexley	Basildon	36.9	55.8	39.7	36.8	47.9	46.2	0.0	-7.9	6.5	-0.1%	-14.2%	16.4%
7 to 5	Bexley	Tilbury Port	28.6	44.6	38.5	28.6	35.8	47.9	0.0	-8.8	9.4	0.0%	-19.7%	24.5%
7 to 6	Bexley	DP World	32.4	48.7	40.0	32.4	40.9	47.5	0.0	-7.7	7.5	-0.1%	-15.9%	18.8%
8 to 1	Godstone	Cheshunt	91.2	92.7	59.0	91.3	90.6	60.5	0.0	-2.1	1.4	0.1%	-2.3%	2.4%
8 to 2	Godstone	Romford	64.4	78.1	49.5	64.4	72.6	53.2	0.0	-5.5	3.8	0.0%	-7.1%	7.6%
8 to 3	Godstone	Brentwood	62.8	70.8	53.2	62.7	66.6	56.5	-0.1	-4.2	3.2	-0.2%	-5.9%	6.0%
8 to 4	Godstone	Basildon	66.5	81.2	49.1	66.5	74.2	53.7	0.0	-7.0	4.6	0.0%	-8.6%	9.4%
8 to 5	Godstone	Tilbury Port	58.2	70.0	49.9	58.2	62.2	56.2	0.0	-7.9	6.3	0.0%	-11.3%	12.7%
8 to 6	Godstone	DP World	62.1	74.1	50.2	62.0	67.3	55.3	0.0	-6.8	5.1	0.0%	-9.2%	10.1%
9 to 1	Southfleet	Cheshunt	60.7	64.4	56.6	60.8	60.1	60.7	0.0	-4.3	4.1	0.1%	-6.7%	7.3%
9 to 2	Southfleet	Romford	33.9	49.8	40.9	33.9	42.1	48.4	0.0	-7.7	7.5	-0.1%	-15.5%	18.3%
9 to 3	Southfleet	Brentwood	32.3	42.4	45.6	32.1	36.0	53.5	-0.1	-6.4	7.9	-0.5%	-15.1%	17.2%
9 to 4	Southfleet	Basildon	36.0	52.9	40.8	35.9	39.0	55.2	-0.1	-13.9	14.4	-0.4%	-26.3%	35.2%
9 to 5	Southfleet	Tilbury Port	27.7	41.7	39.8	27.7	31.6	52.6	0.0	-10.1	12.7	0.0%	-24.2%	32.0%

Movement	From	To	DM			DS			Difference			Difference %age		
			Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance (km)	Journey Time (mins)	Average Speed (km/h)	Distance	Journey Time	Average Speed
9 to 6	Southfleet	DP World	31.5	45.8	41.3	31.4	32.0	58.8	-0.1	-13.8	17.5	-0.4%	-30.1%	42.4%
10 to 1	Maidstone	Cheshunt	88.3	85.7	61.8	83.3	81.2	61.6	-4.9	-4.5	-0.2	-5.6%	-5.3%	-0.3%
10 to 2	Maidstone	Romford	61.5	71.1	51.8	56.4	63.1	53.6	-5.0	-8.0	1.8	-8.2%	-11.2%	3.4%
10 to 3	Maidstone	Brentwood	59.8	63.8	56.3	54.9	56.6	58.1	-4.9	-7.1	1.8	-8.3%	-11.2%	3.3%
10 to 4	Maidstone	Basildon	63.5	74.2	51.4	50.3	54.8	55.1	-13.2	-19.4	3.7	-20.8%	-26.1%	7.2%
10 to 5	Maidstone	Tilbury Port	55.2	63.0	52.6	45.9	47.3	58.1	-9.4	-15.7	5.6	-16.9%	-24.9%	10.6%
10 to 6	Maidstone	DP World	59.1	67.1	52.8	45.9	47.9	57.5	-13.2	-19.2	4.7	-22.3%	-28.7%	8.9%
11 to 1	Rochester	Cheshunt	74.5	95.7	46.7	70.3	78.7	53.6	-4.2	-17.0	6.9	-5.6%	-17.8%	14.8%
11 to 2	Rochester	Romford	47.7	81.1	35.3	43.4	60.6	43.0	-4.2	-20.5	7.7	-8.9%	-25.2%	21.8%
11 to 3	Rochester	Brentwood	46.0	73.7	37.5	41.9	54.1	46.4	-4.2	-19.6	8.9	-9.1%	-26.6%	23.9%
11 to 4	Rochester	Basildon	49.7	84.2	35.4	37.3	52.3	42.8	-12.4	-31.9	7.3	-25.0%	-37.9%	20.7%
11 to 5	Rochester	Tilbury Port	41.4	73.0	34.1	32.9	44.8	44.0	-8.6	-28.1	9.9	-20.7%	-38.6%	29.1%
11 to 6	Rochester	DP World	45.3	77.1	35.2	32.9	45.4	43.5	-12.4	-31.7	8.2	-27.4%	-41.1%	23.3%
12 to 1	Rainham	Cheshunt	91.5	100.2	54.8	87.5	83.0	63.3	-4.0	-17.2	8.5	-4.4%	-17.2%	15.4%
12 to 2	Rainham	Romford	64.7	85.6	45.4	60.6	64.9	56.0	-4.1	-20.7	10.7	-6.4%	-24.2%	23.5%
12 to 3	Rainham	Brentwood	63.1	78.2	48.4	59.0	58.4	60.7	-4.0	-19.8	12.3	-6.4%	-25.3%	25.4%
12 to 4	Rainham	Basildon	66.8	88.7	45.2	54.5	56.6	57.8	-12.3	-32.1	12.6	-18.4%	-36.2%	27.9%
12 to 5	Rainham	Tilbury Port	58.5	77.5	45.3	50.0	49.1	61.1	-8.4	-28.4	15.9	-14.4%	-36.6%	35.0%
12 to 6	Rainham	DP World	62.3	81.6	45.8	50.0	49.6	60.5	-12.3	-31.9	14.6	-19.7%	-39.2%	32.0%

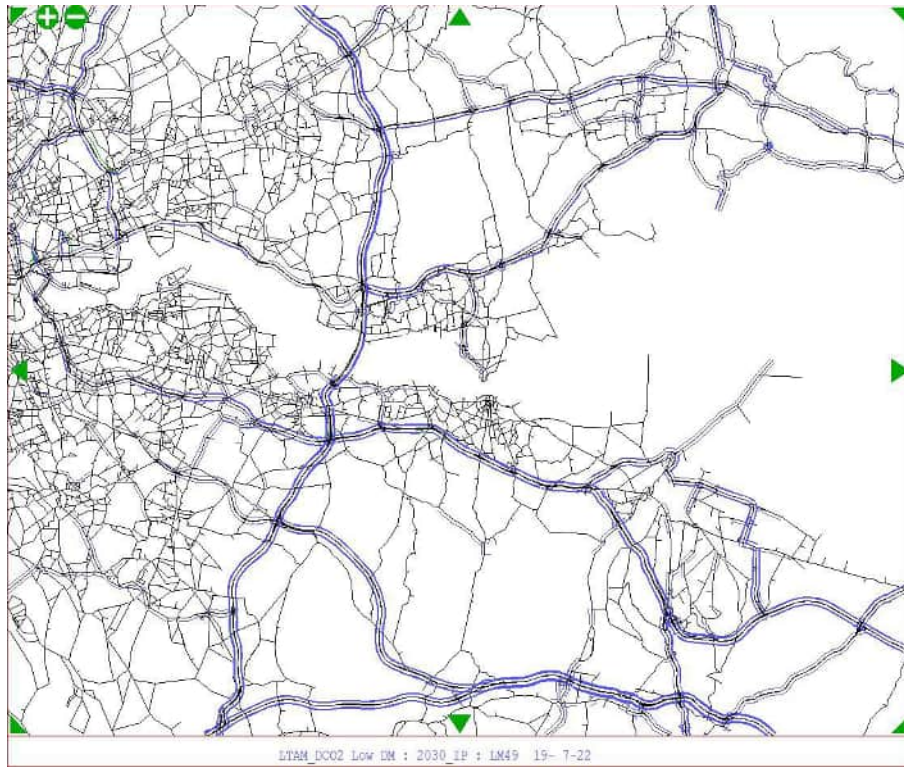
## Annex E Sensitivity Tests – Flow Comparisons to Core Scenario

E.1.1 The analysis below is presented in order to compare the core scenario with the low and high growth scenarios. Plate E.1 to Plate E.12 provide comparisons of the total PCU flow of the low growth scenario minus the core scenario for the Do Minimum. Plate E.13 to Plate E.24 provide the same comparison for the Do Something. Plate E.25 to Plate E.36 provide comparisons of the total PCU flow of the high growth scenario minus the core scenario for the Do Minimum. Plate E.37 to Plate E.48 provide the same comparison for the Do Something. Blue colours indicate that there is more flow in the core scenario, green colours indicate that there is less flow in the core scenario.

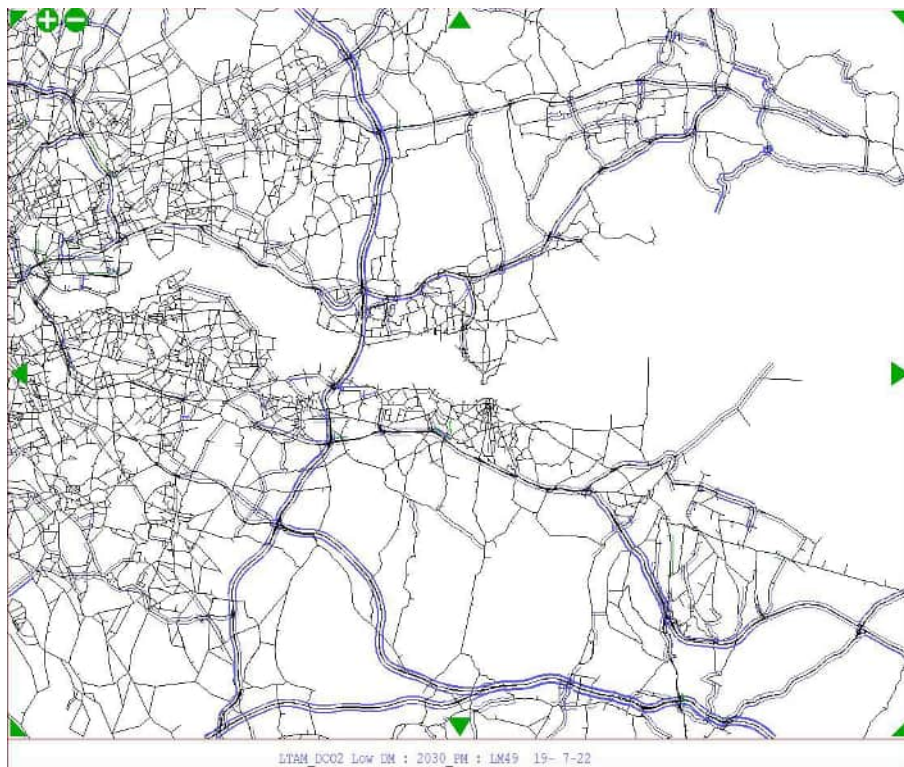
**Plate E.1 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2030 DM  
AM Peak**



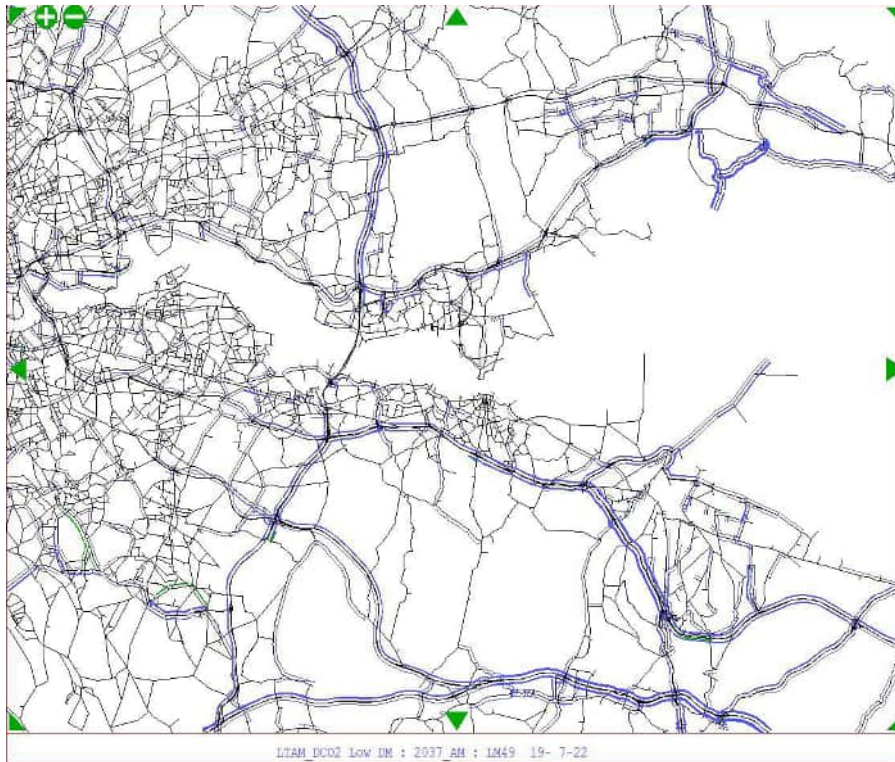
### Plate E.2 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2030 DM Inter Peak



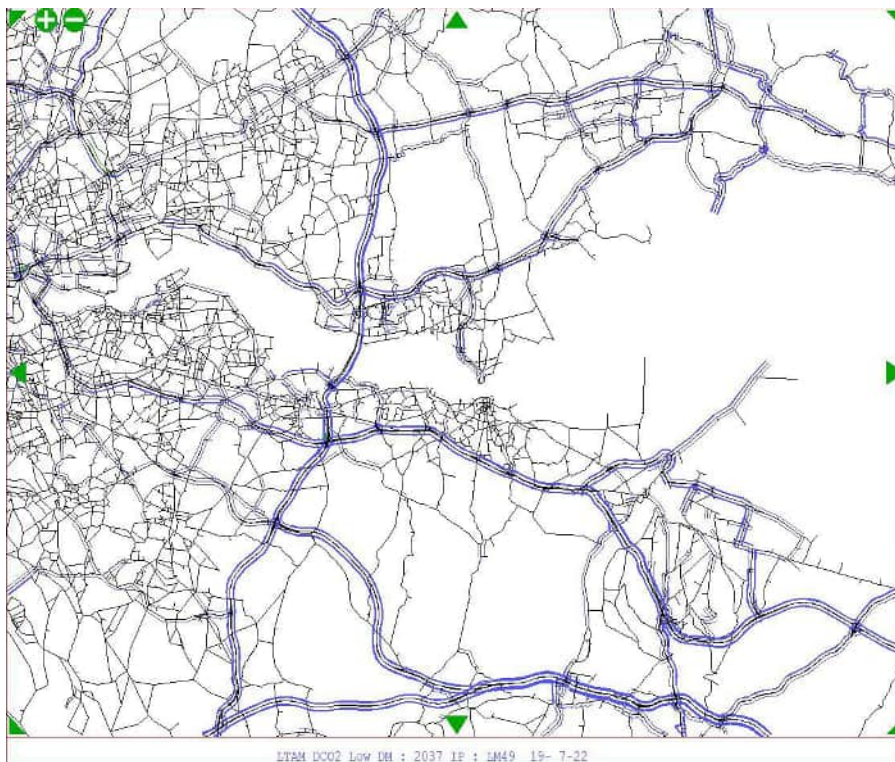
### Plate E.3 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2030 DM PM Peak



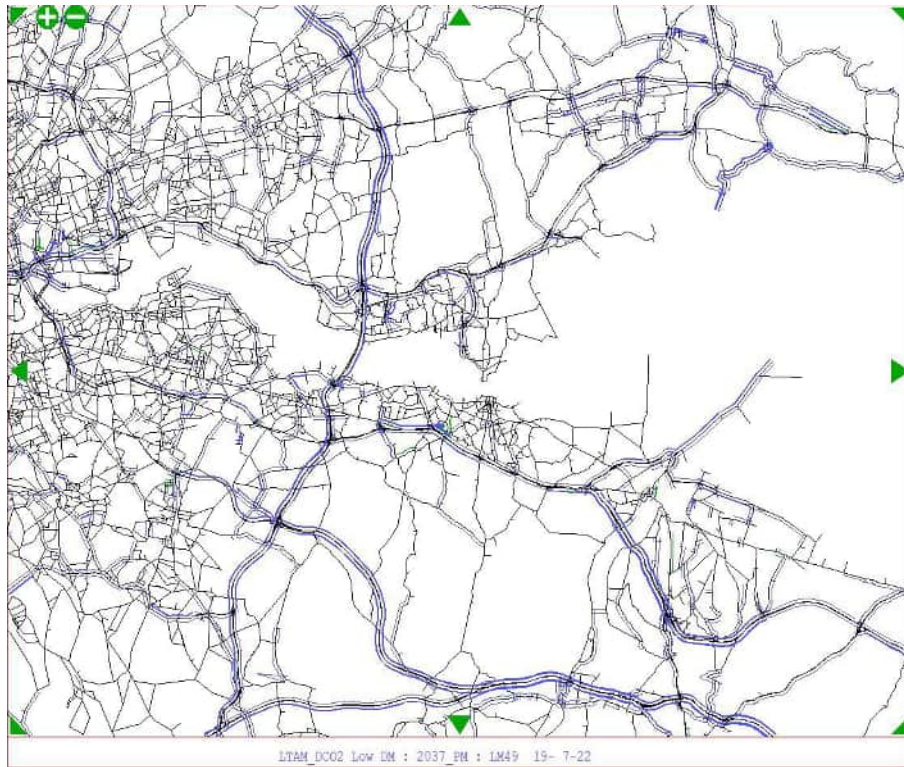
**Plate E.4 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2037  
DM AM Peak**



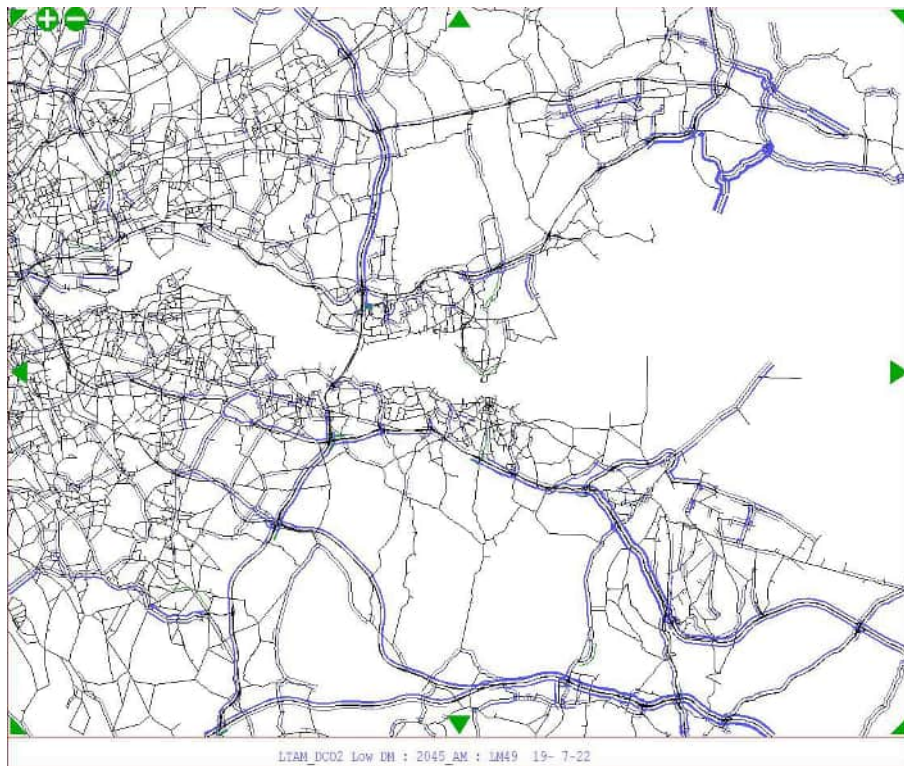
**Plate E.5 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2037 DM  
Inter Peak**



**Plate E.6 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2037  
DM PM Peak**

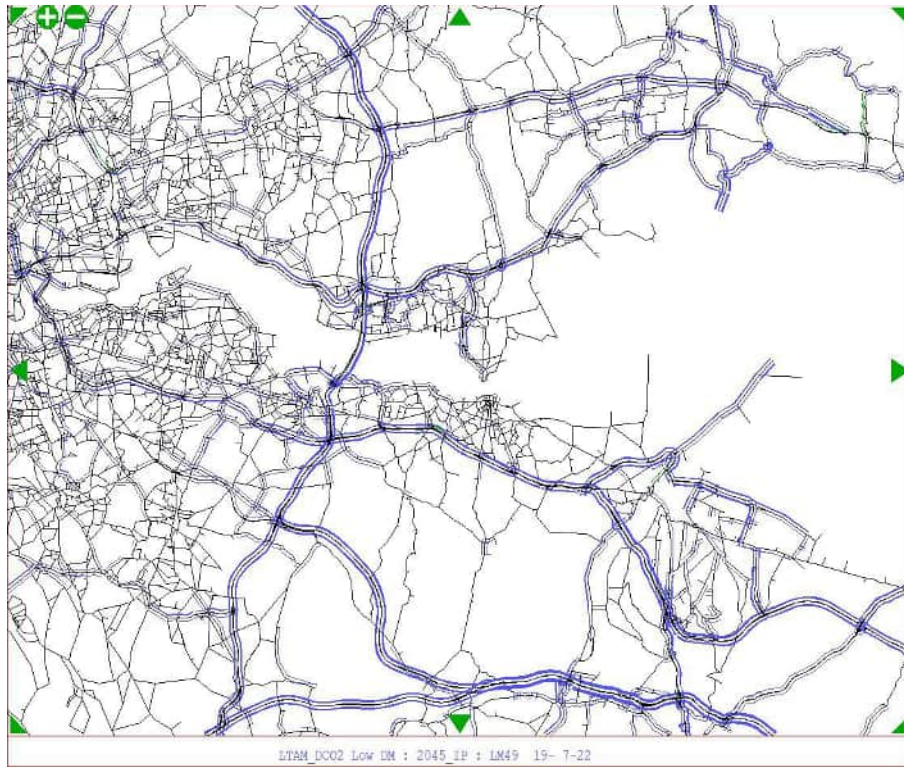


**Plate E.7 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2045  
DM AM Peak**

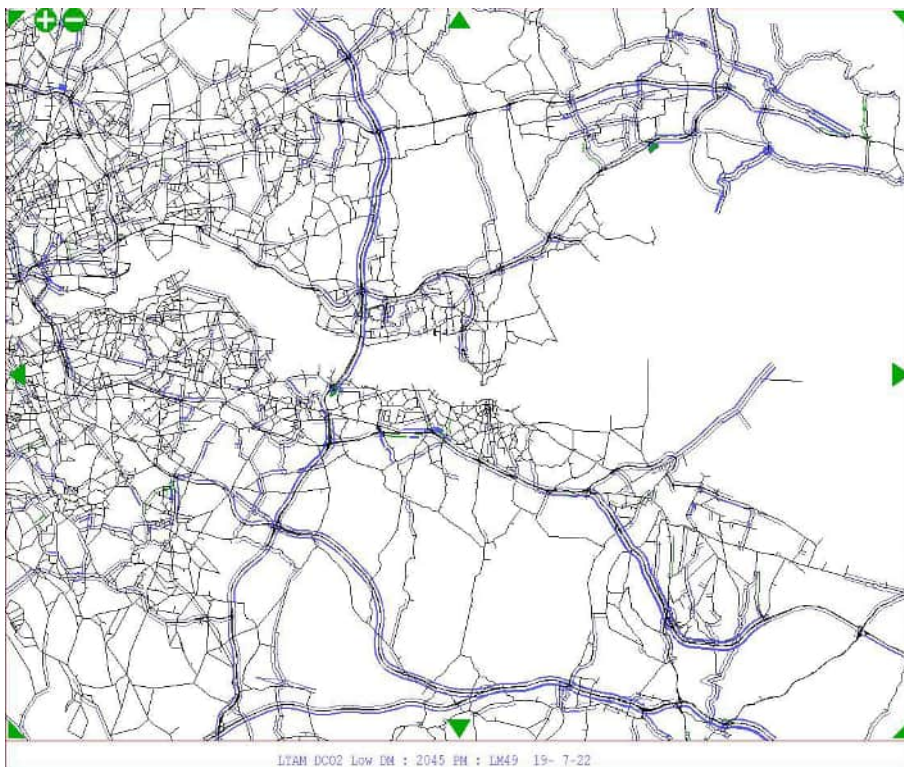




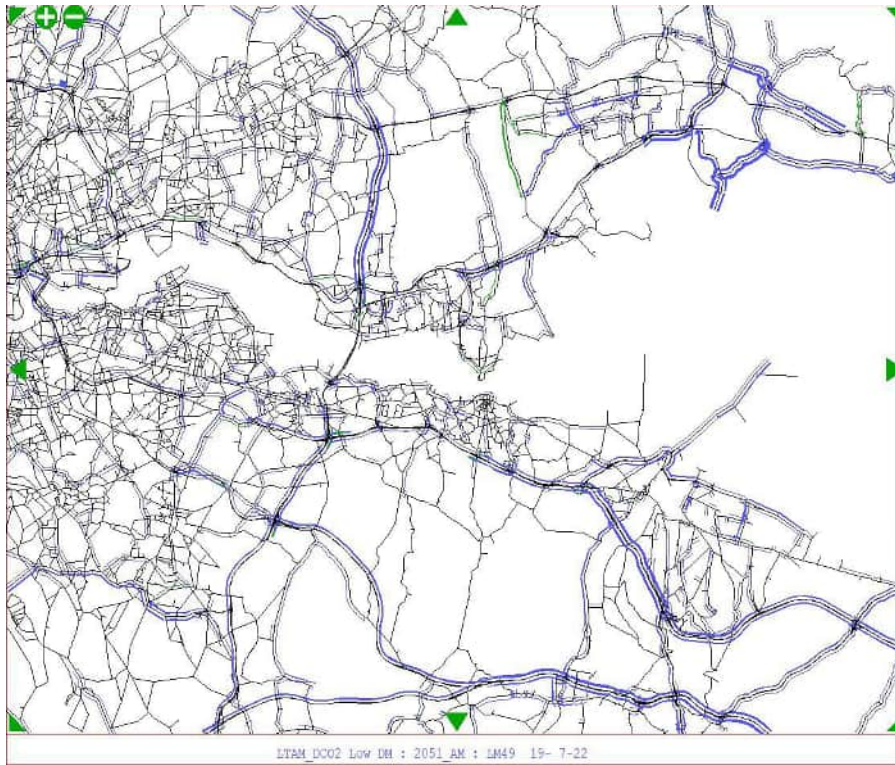
**Plate E.8 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2045  
DM Inter Peak**



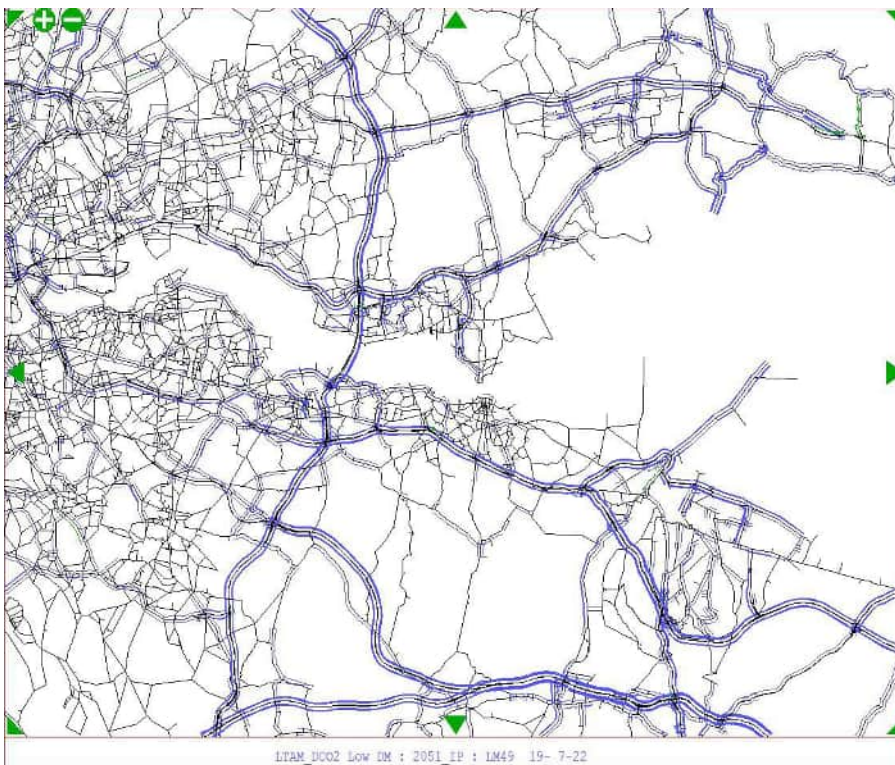
**Plate E.9 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2045  
DM PM Peak**



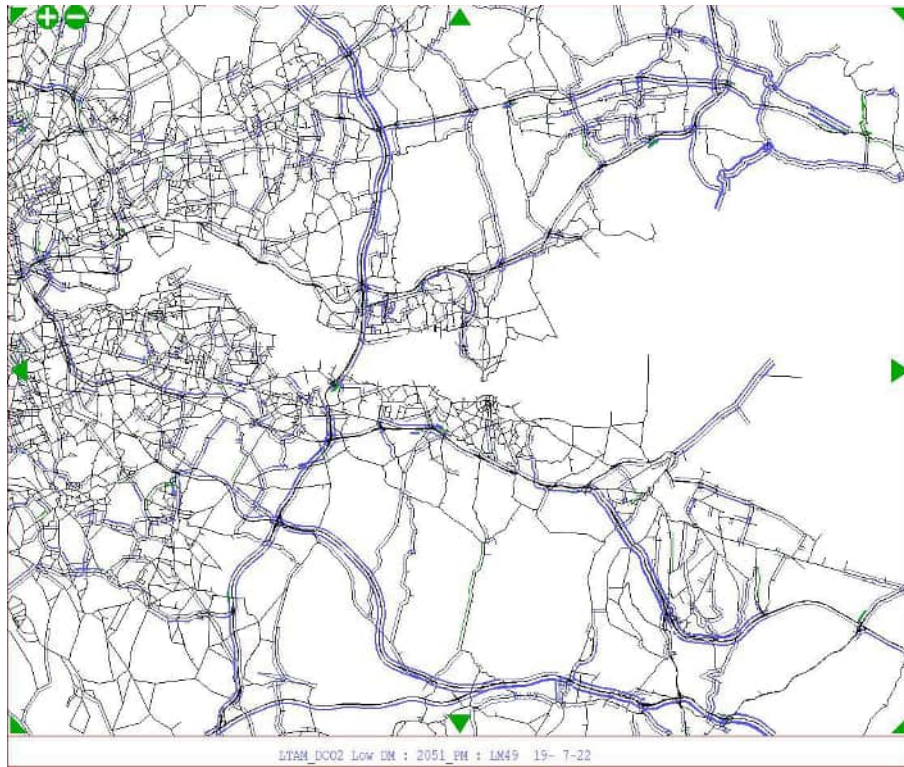
**Plate E.10 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051  
DM AM Peak**



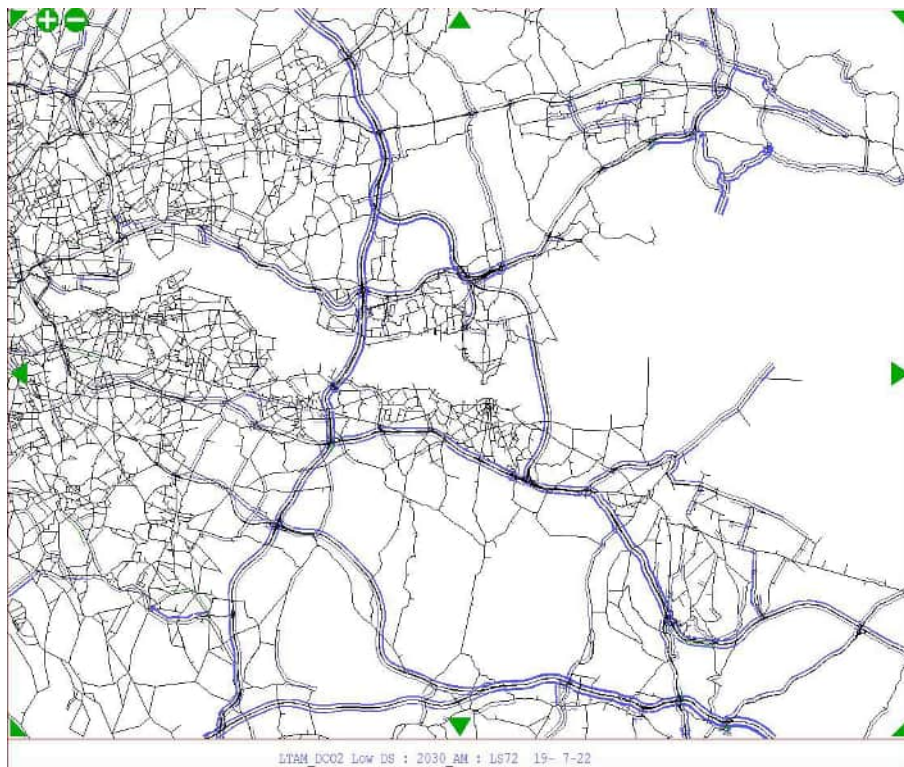
**Plate E.11 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051  
DM Inter Peak**



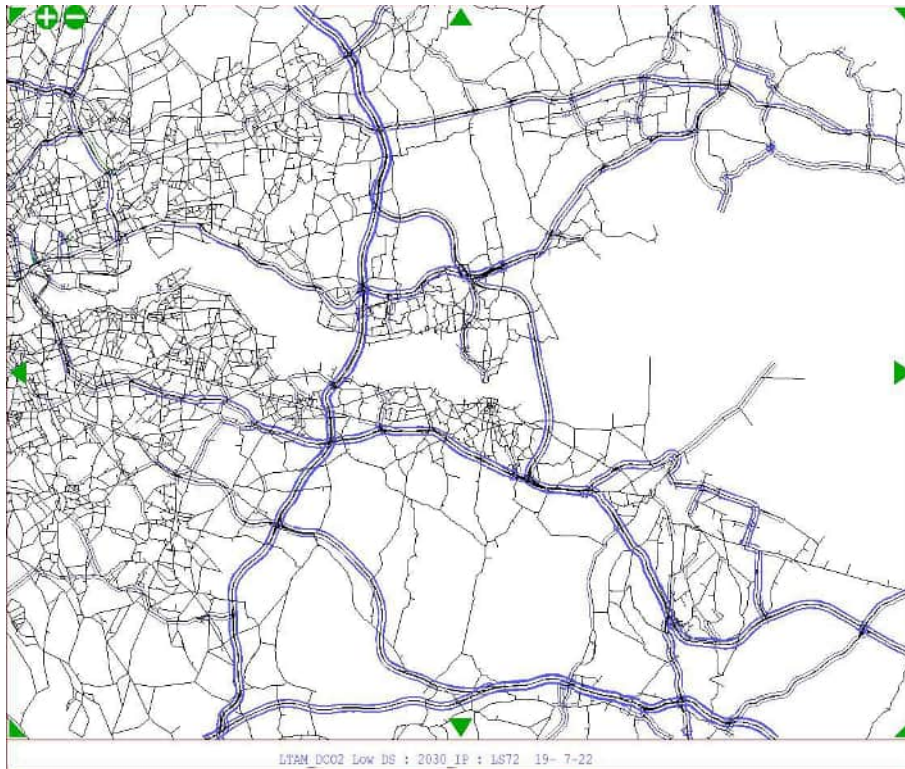
**Plate E.12 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051  
DM PM Peak**



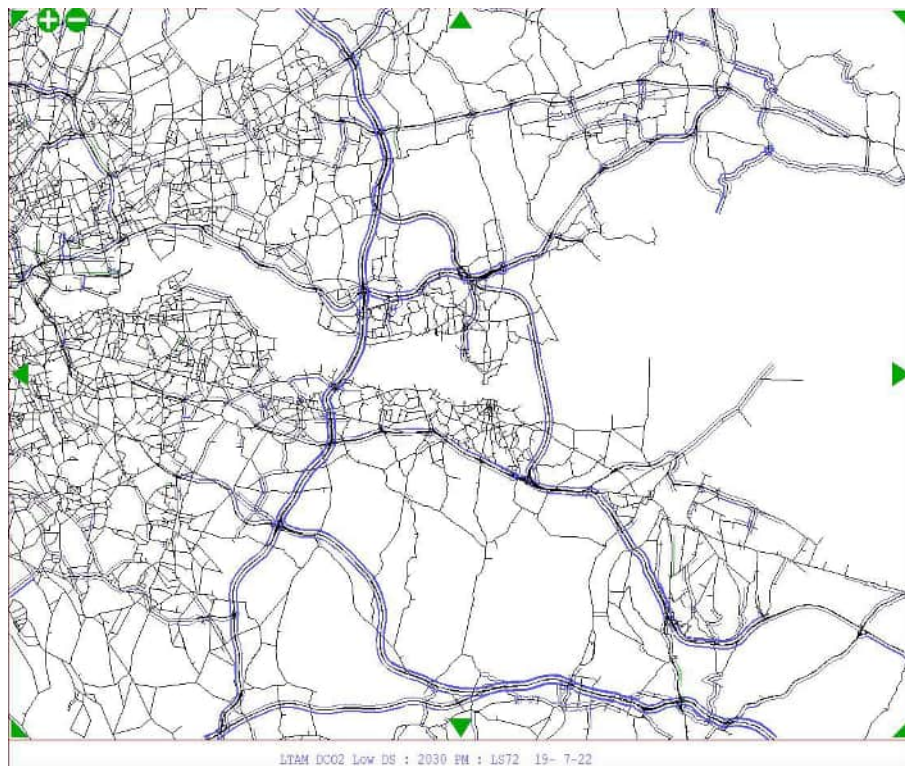
**Plate E.13 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2030  
DS AM Peak**



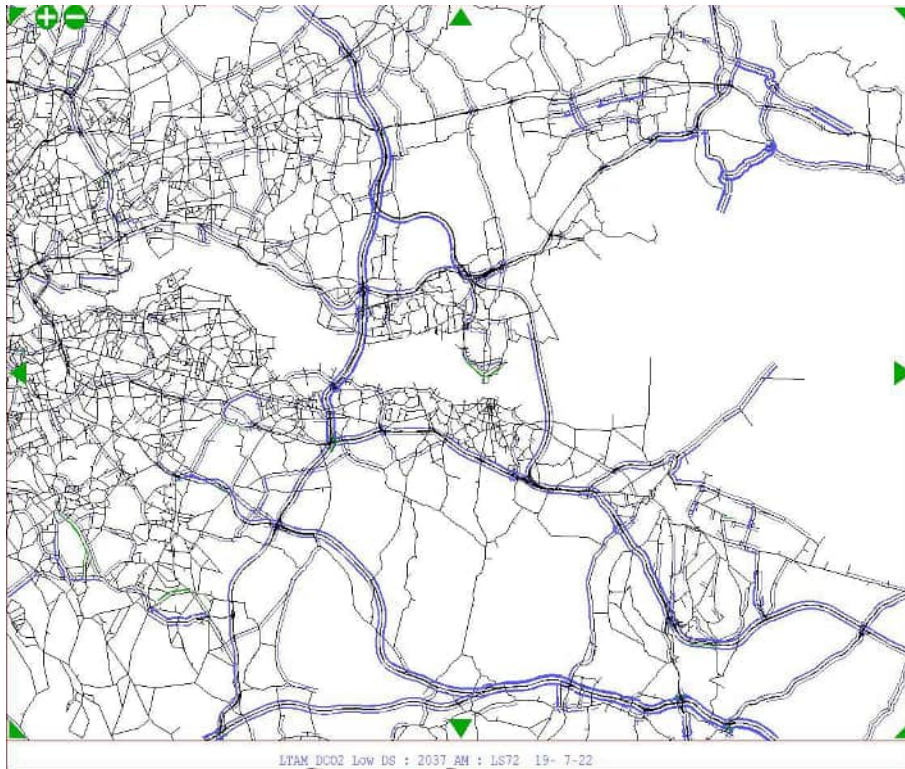
**Plate E.14 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2030  
DS Inter Peak**



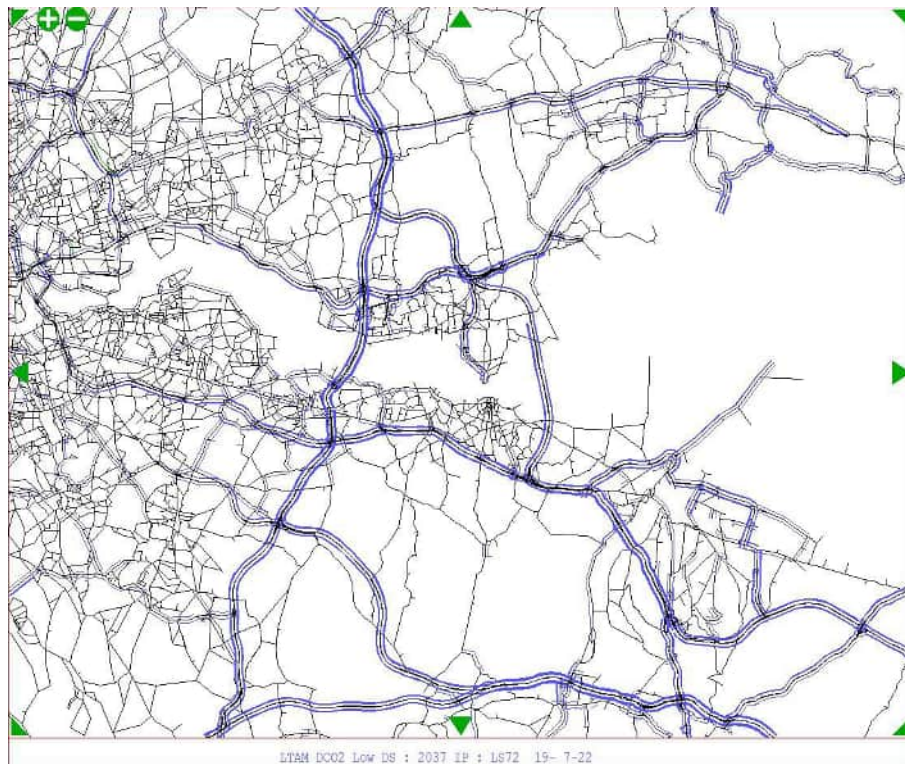
**Plate E.15 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2030  
DS PM Peak**



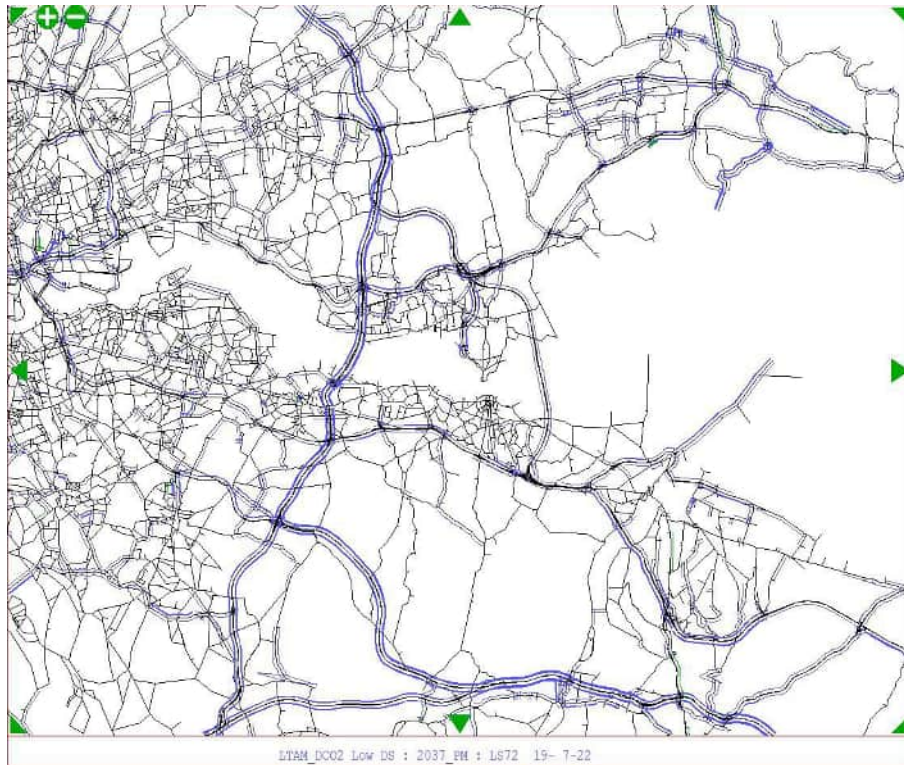
**Plate E.16 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2037  
DS AM Peak**



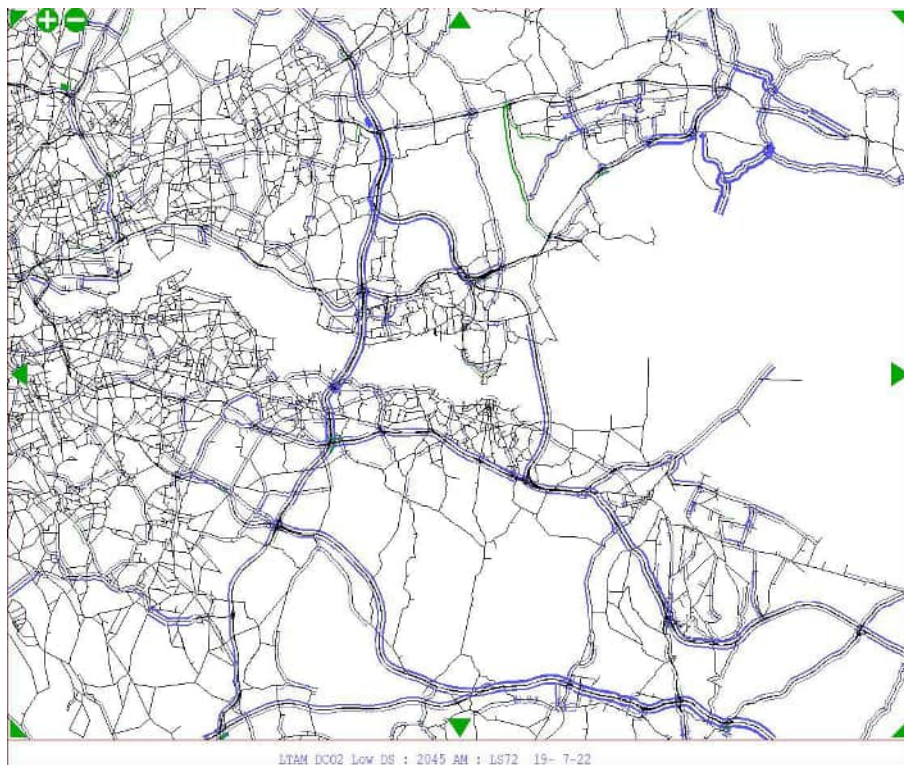
**Plate E.17 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2037  
DS Inter Peak**



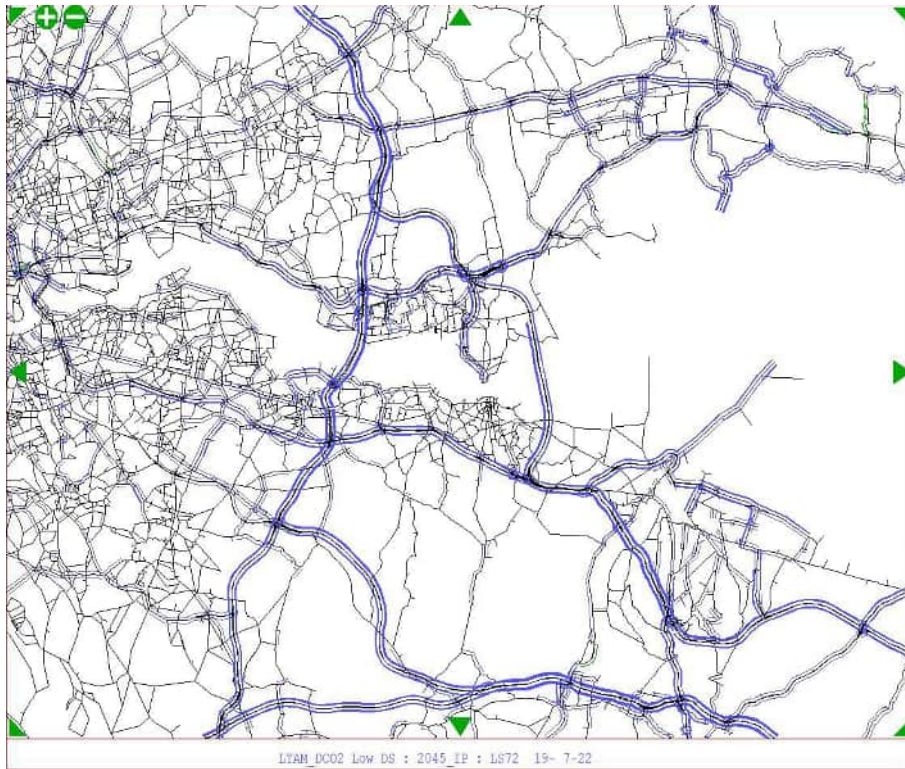
**Plate E.18 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2037  
DS PM Peak**



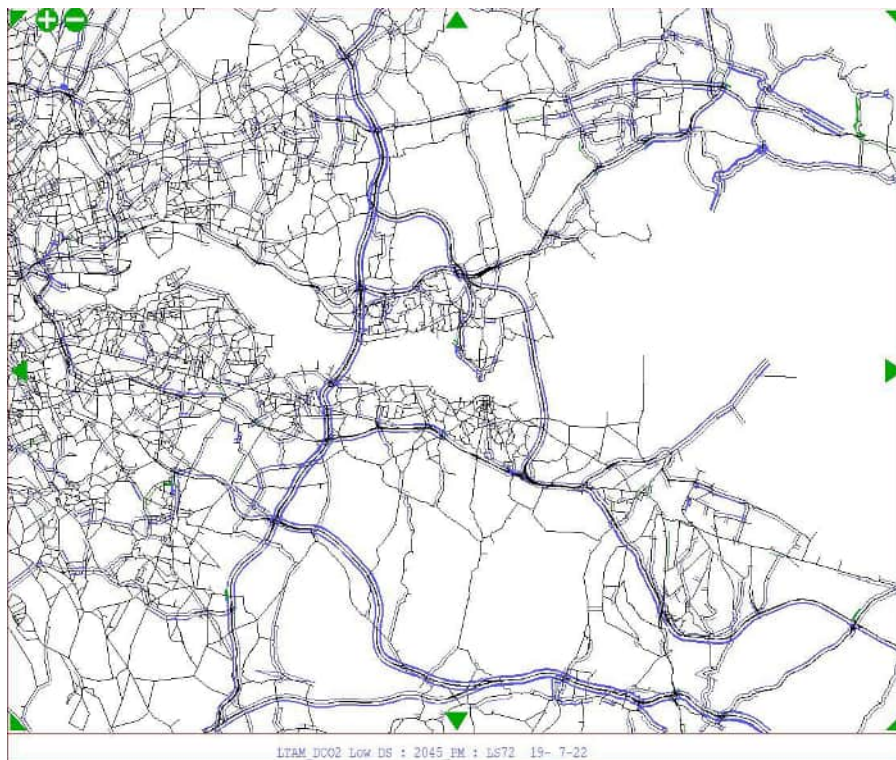
**Plate E.19 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2045  
DS AM Peak**



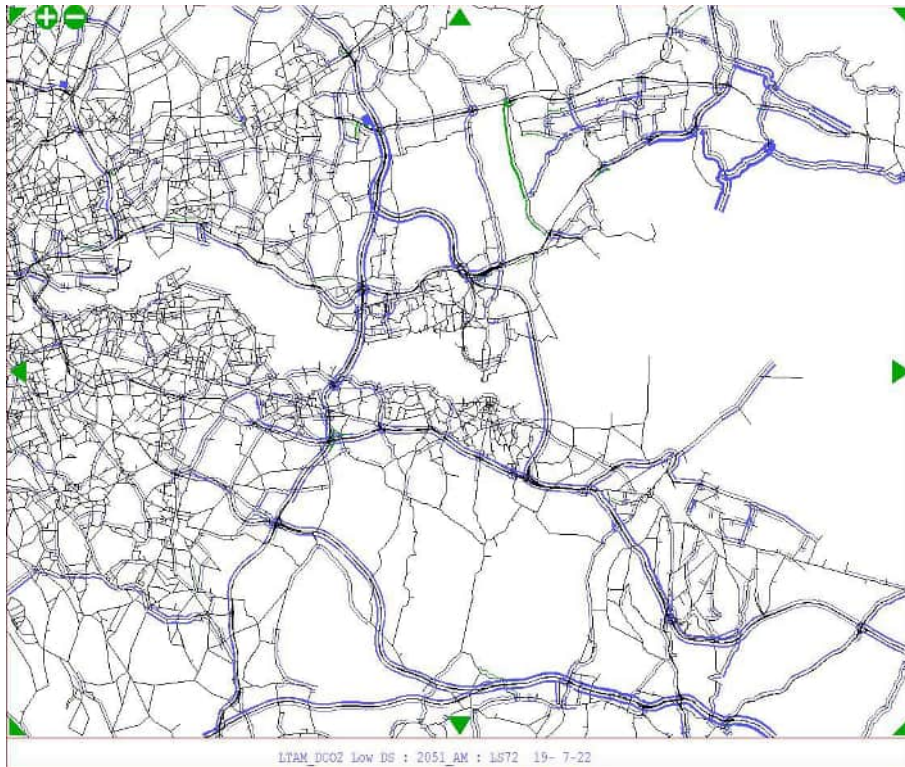
**Plate E.20 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2045  
DS Inter Peak**



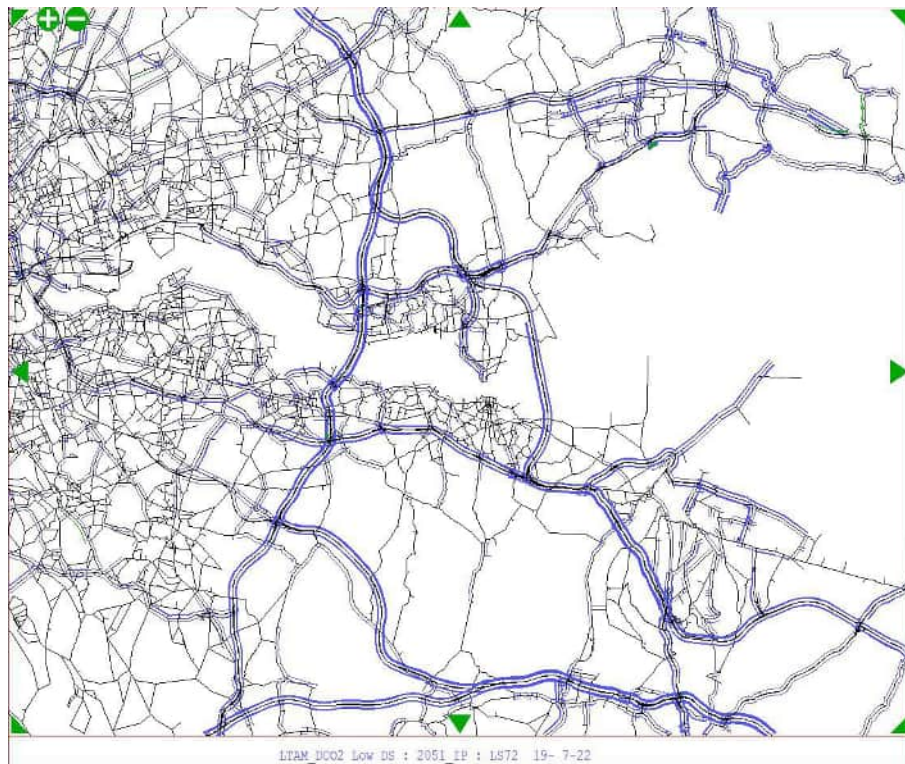
**Plate E.21 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2045  
DS PM Peak**



**Plate E.22 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051  
DS AM Peak**

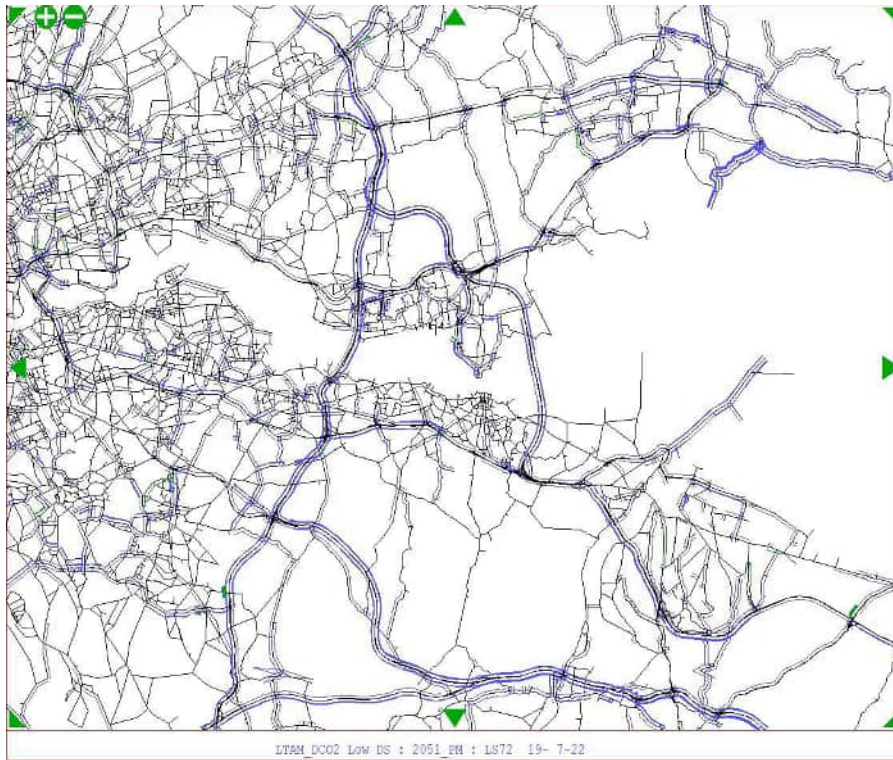


**Plate E.23 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051  
DS Inter Peak**

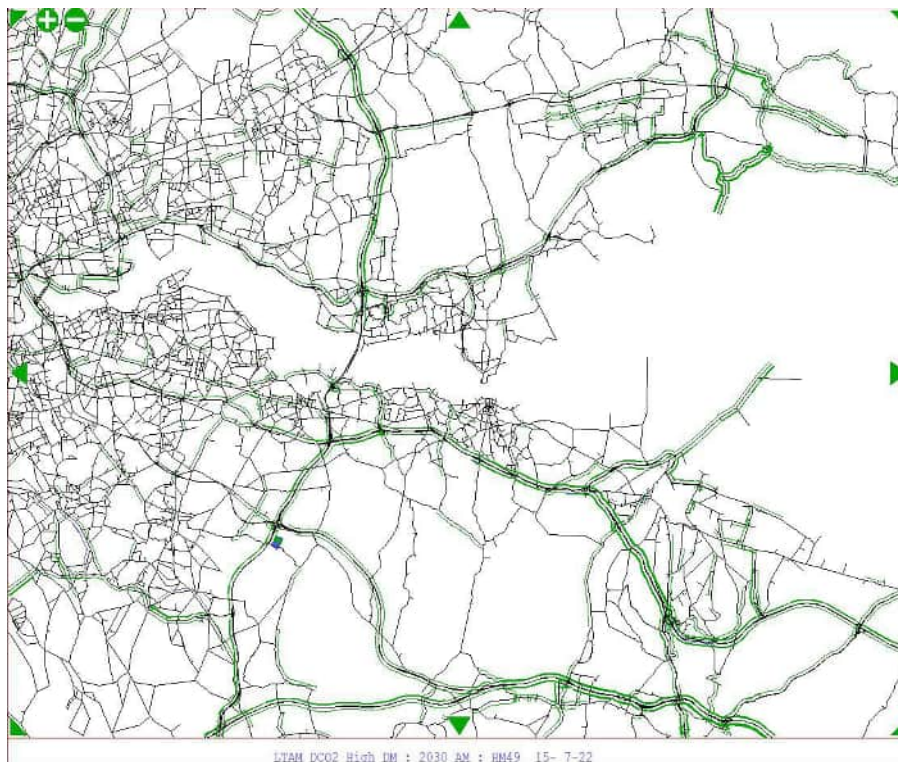




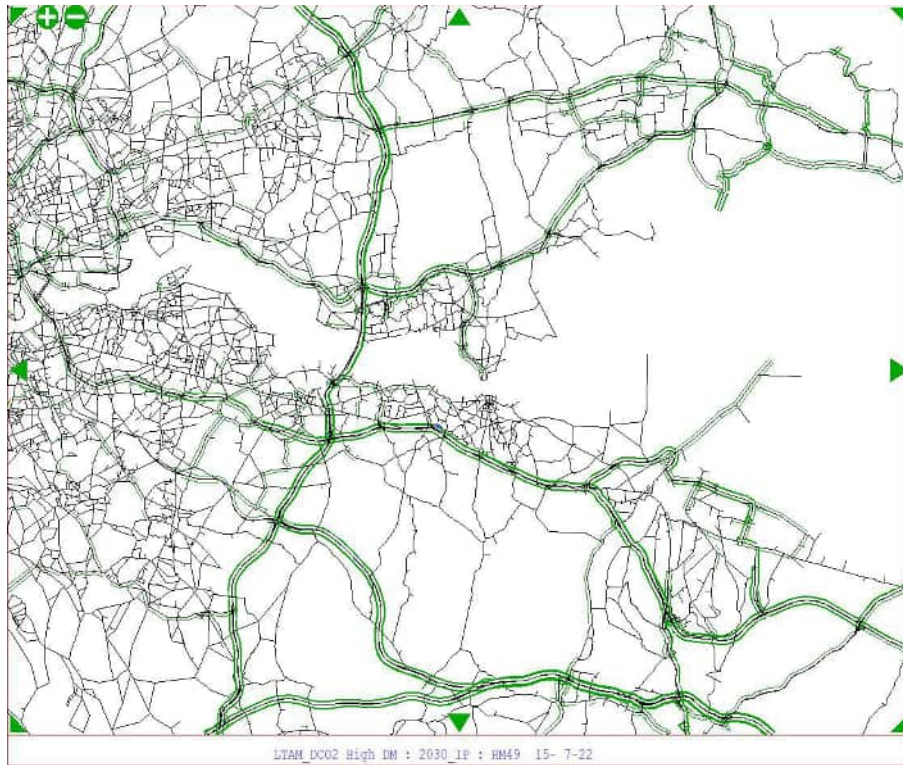
**Plate E.24 Flow Difference Plot – Low Growth Scenario Minus Core Scenario 2051  
DS PM Peak**



**Plate E.25 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2030  
DM AM Peak**



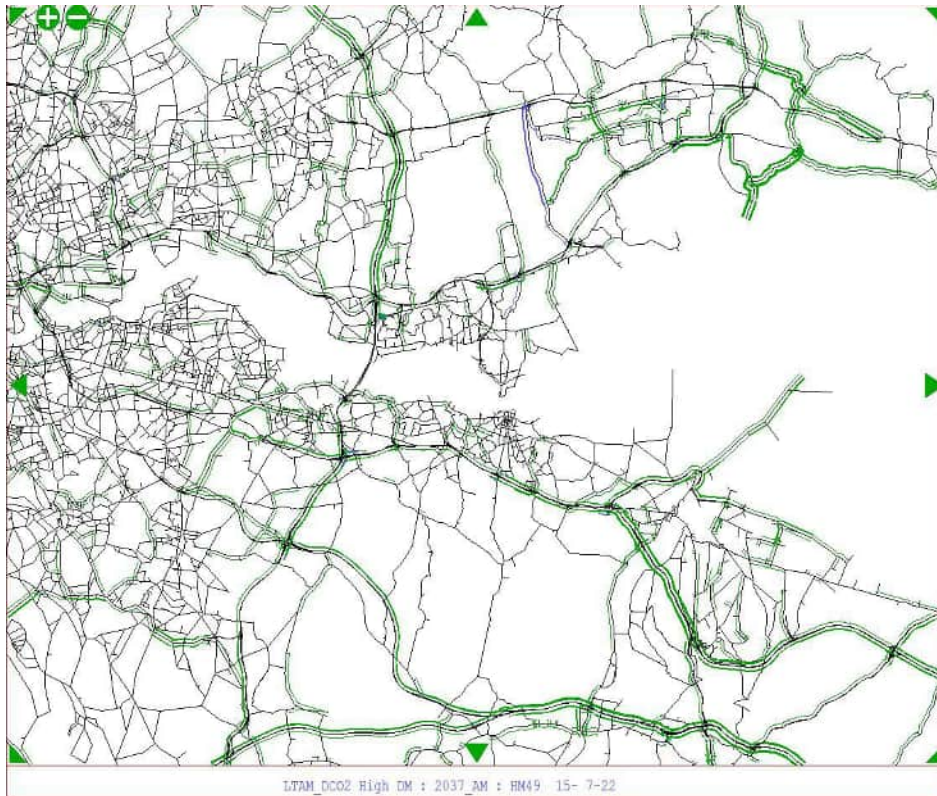
**Plate E.26 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2030  
DM Inter Peak**



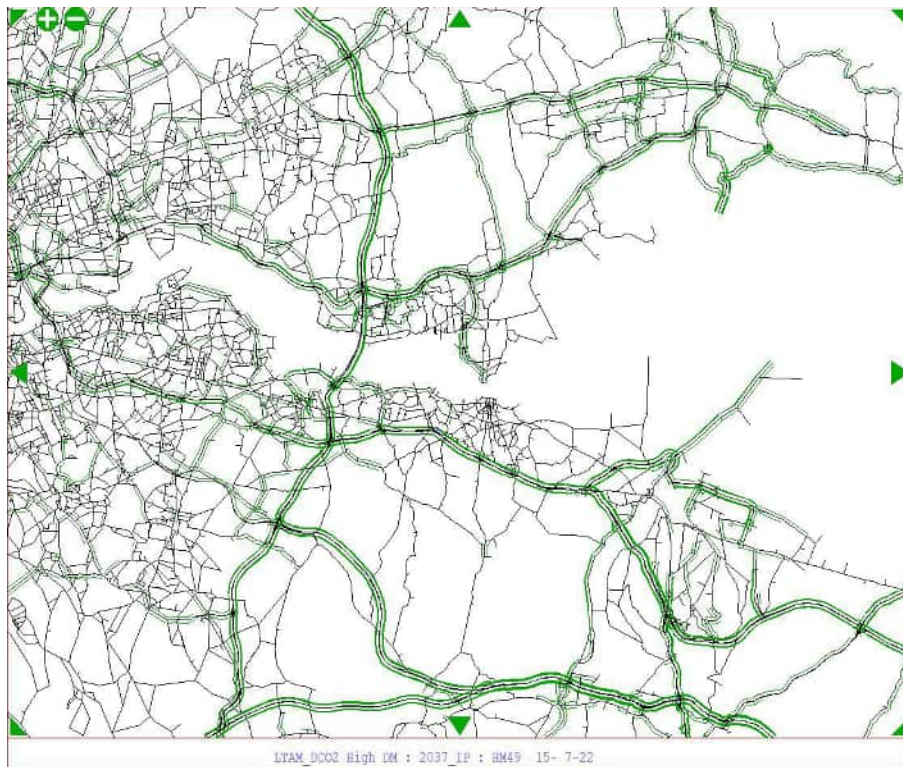
**Plate E.27 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2030  
DM PM Peak**



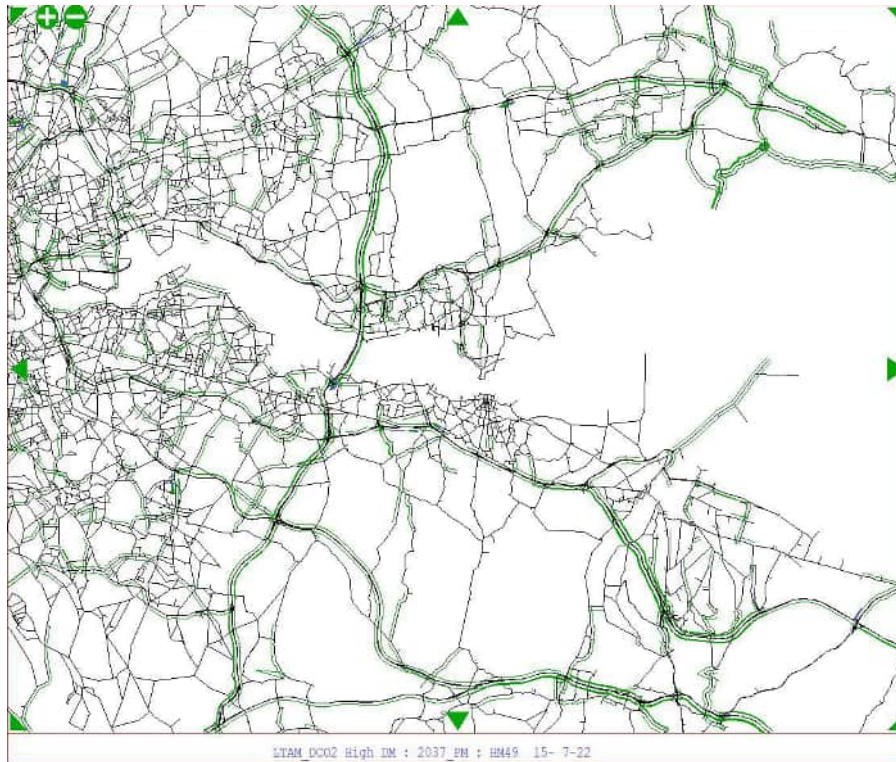
**Plate E.28 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2037  
DM AM Peak**



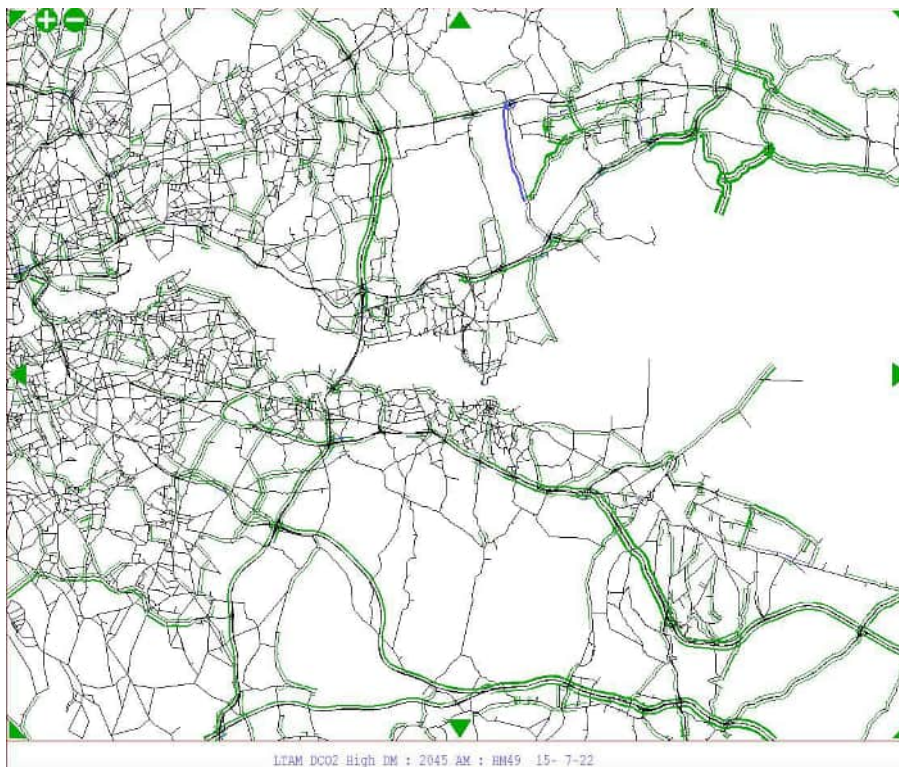
**Plate E.29 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2037  
DM Inter Peak**



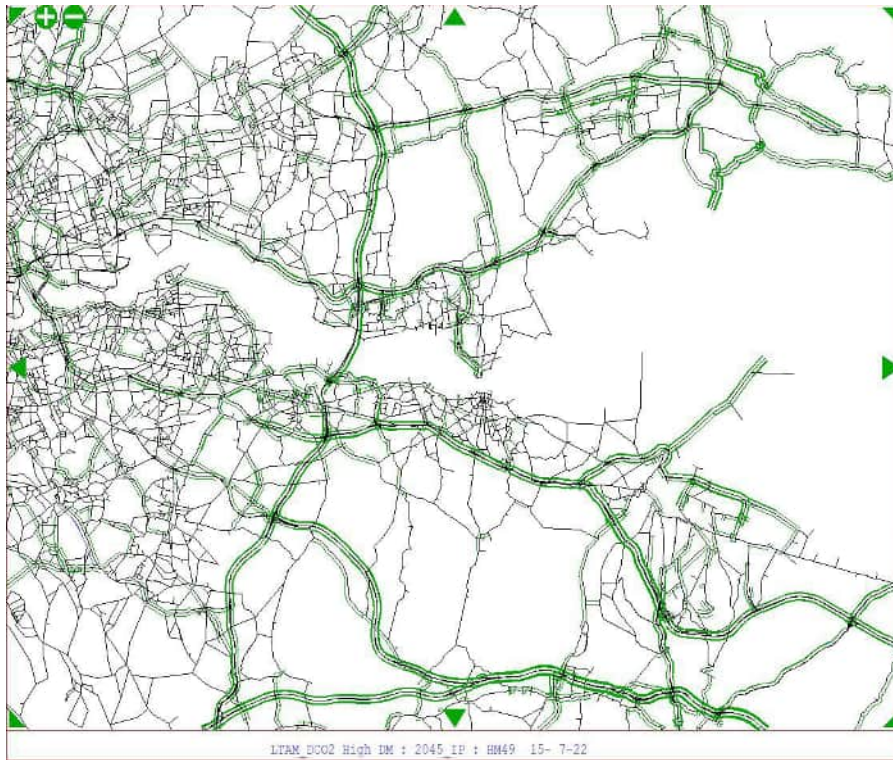
**Plate E.30 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2037  
DM PM Peak**



**Plate E.31 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2045  
DM AM Peak**



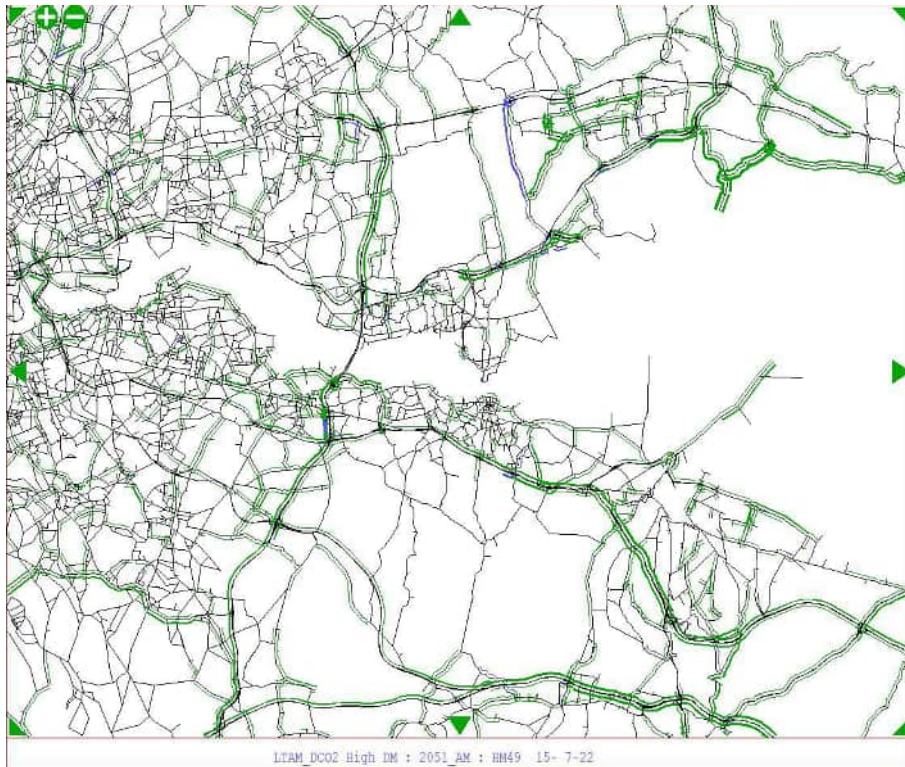
**Plate E.32 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2045  
DM Inter Peak**



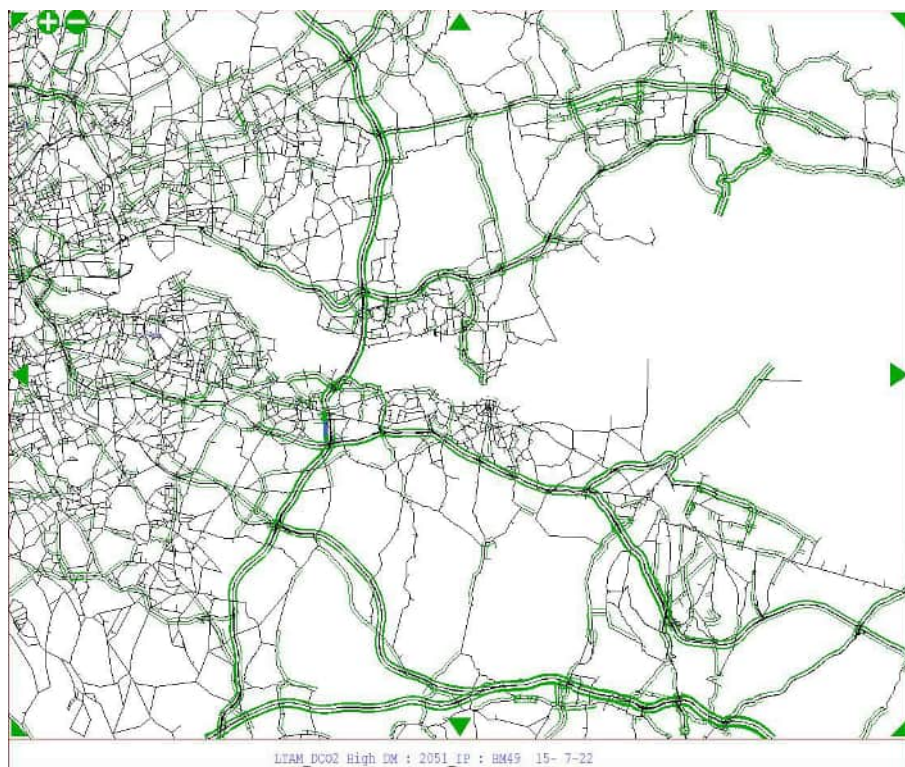
**Plate E.33 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2045  
DM PM Peak**



**Plate E.34 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051  
DM AM Peak**



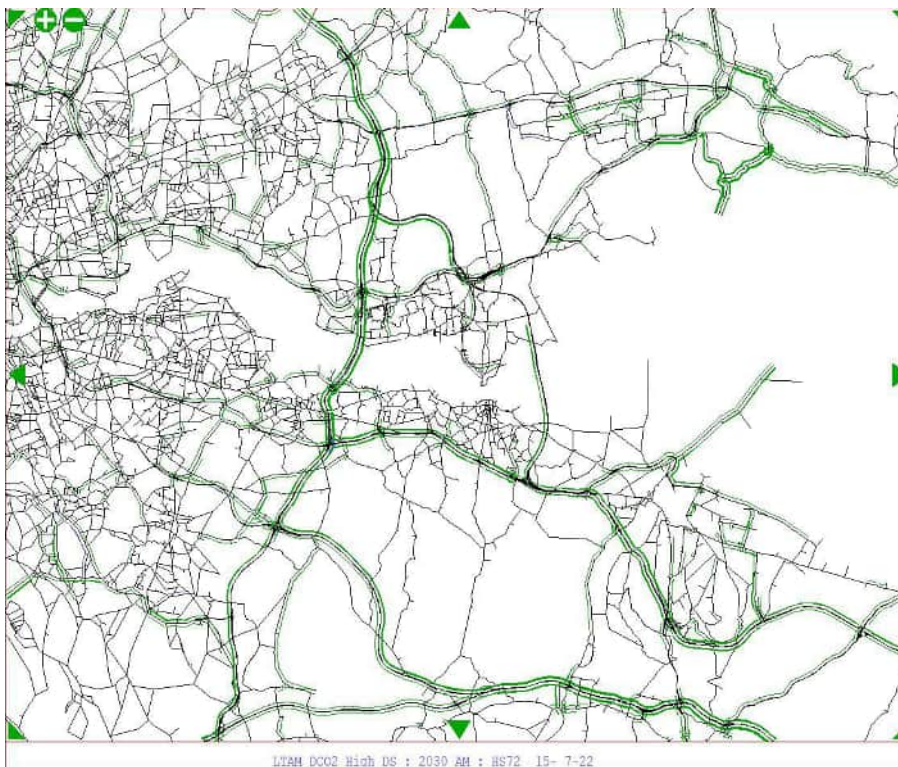
**Plate E.35 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051  
DM Inter Peak**



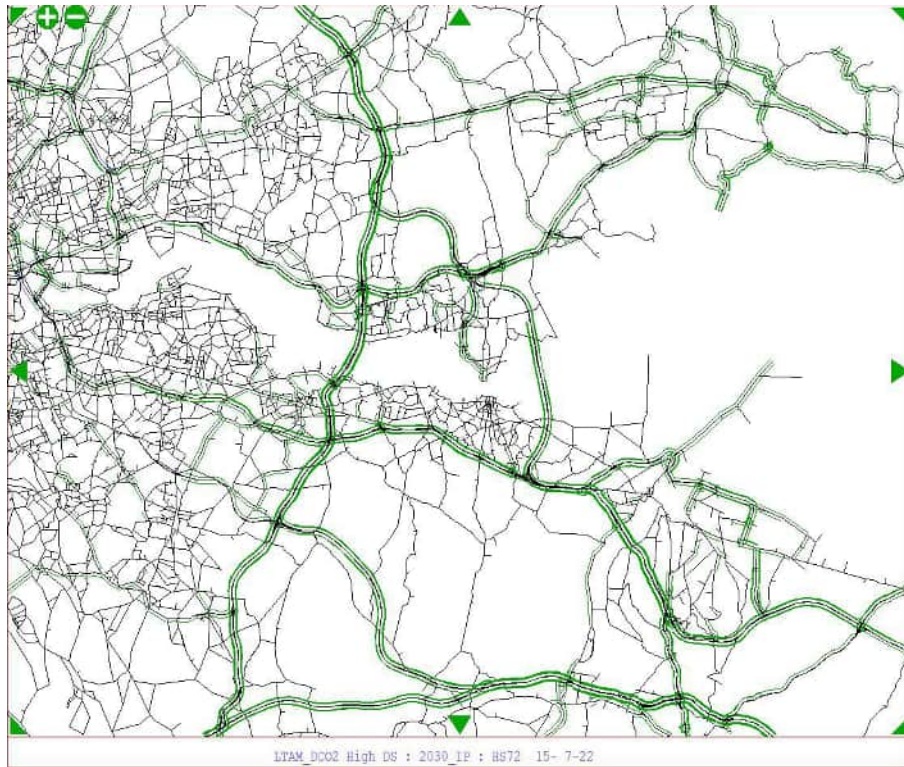
**Plate E.36 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051  
DM PM Peak**



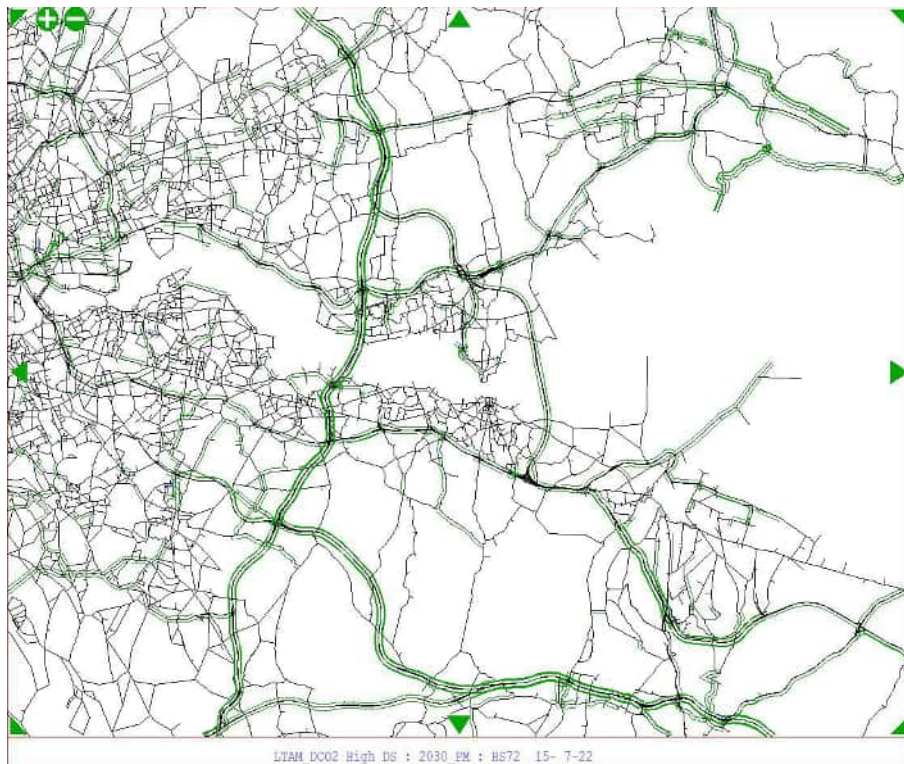
**Plate E.37 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2030  
DS AM Peak**



**Plate E.38 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2030  
DS Inter Peak**

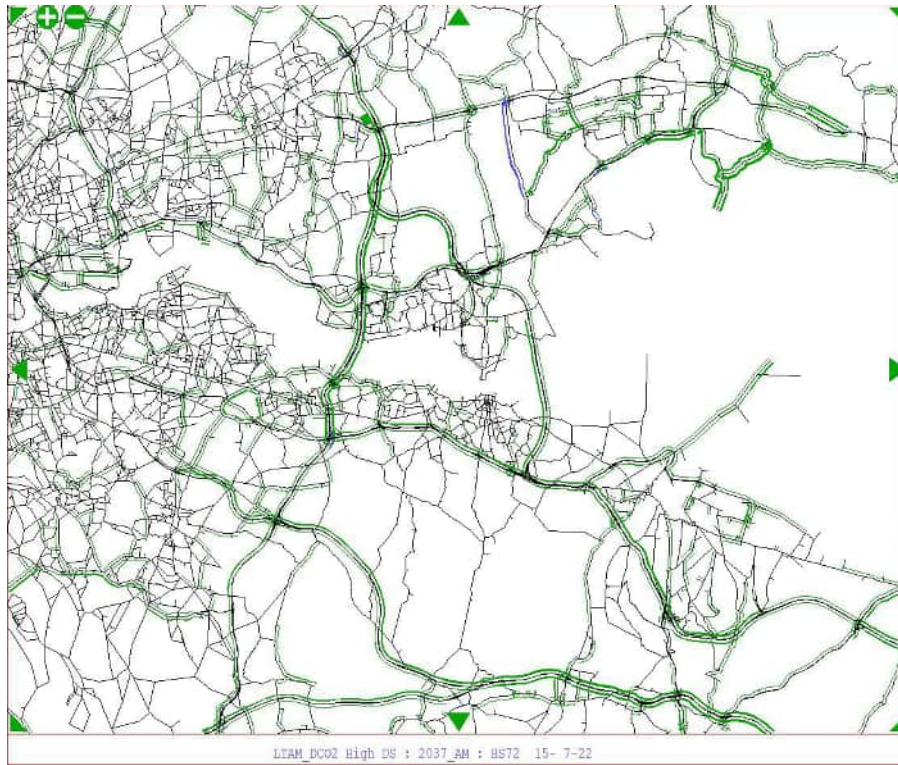


**Plate E.39 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2030  
DS PM Peak**

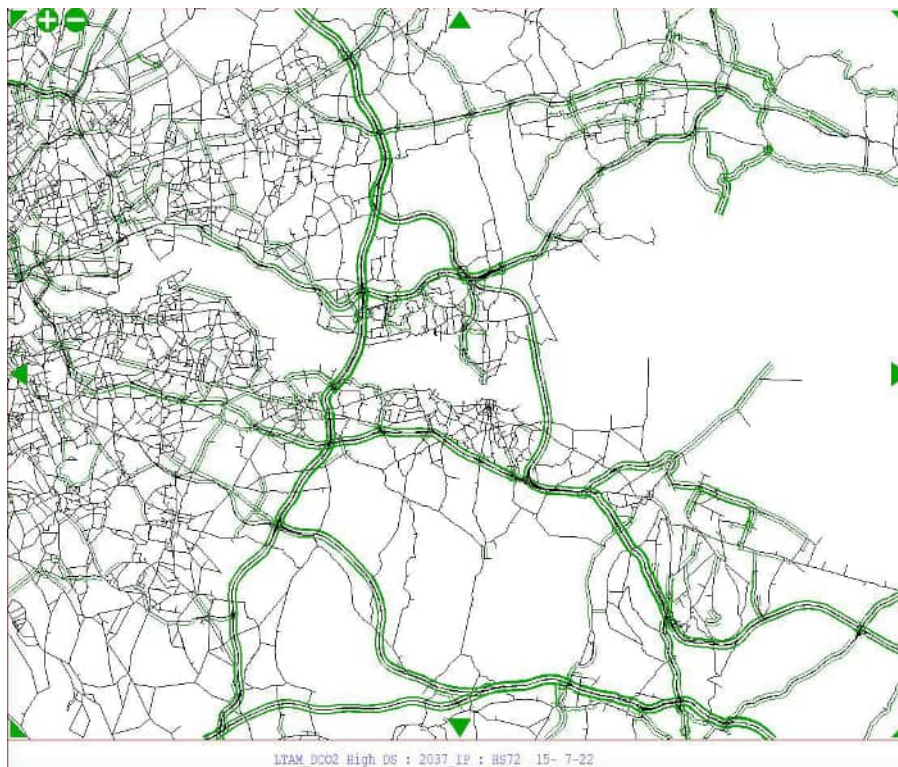




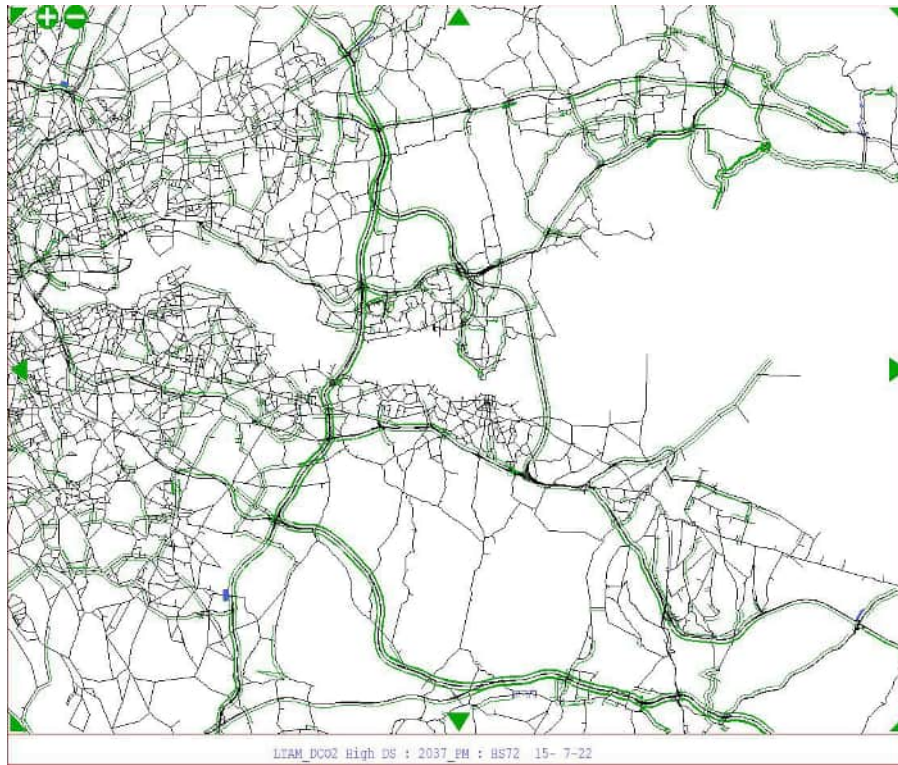
**Plate E.40 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2037  
DS AM Peak**



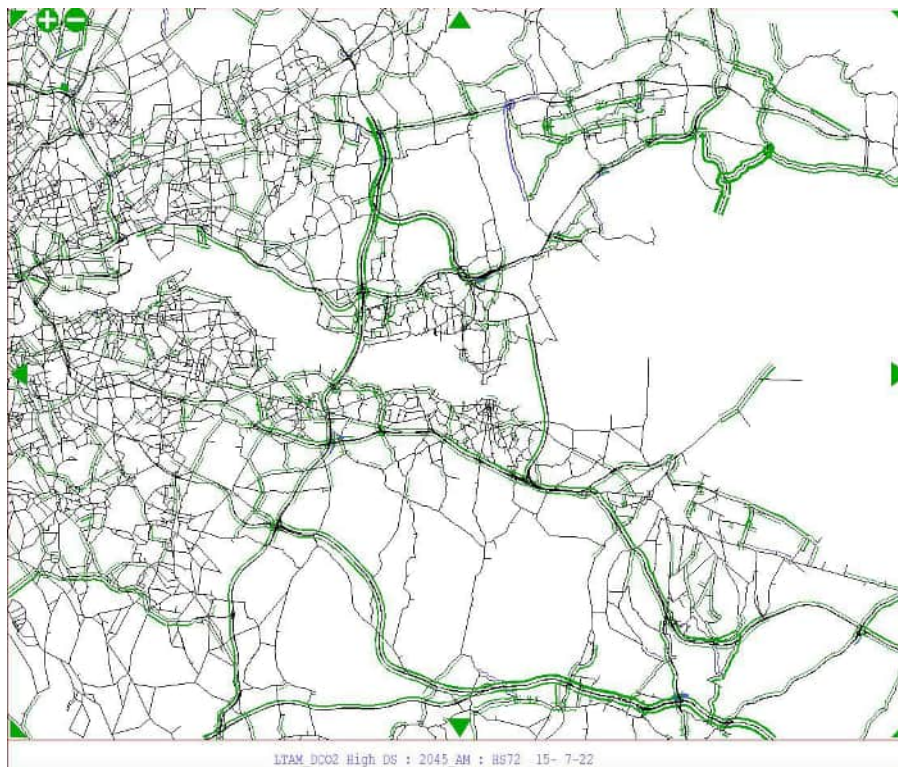
**Plate E.41 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2037  
DS Inter Peak**



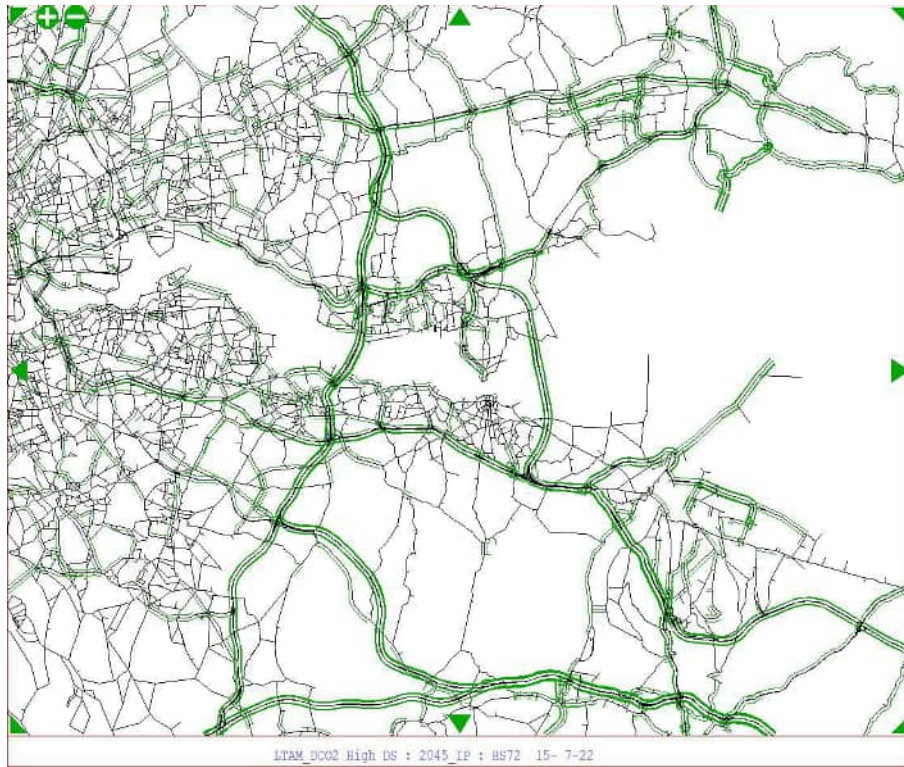
**Plate E.42 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2037  
DS PM Peak**



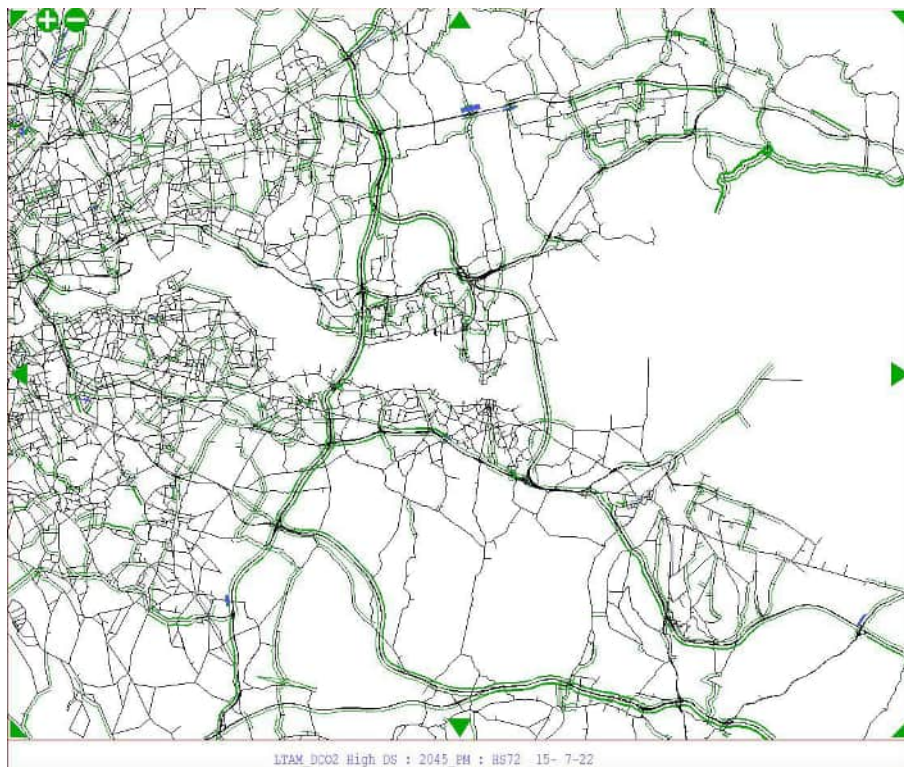
**Plate E.43 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2045  
DS AM Peak**



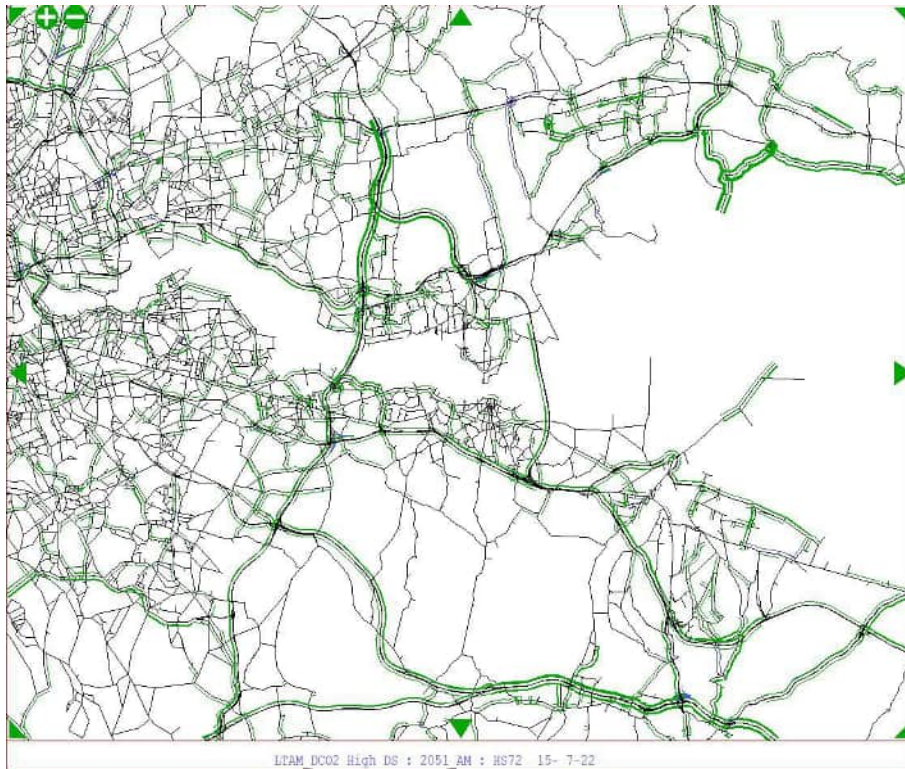
**Plate E.44 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2045  
DS Inter Peak**



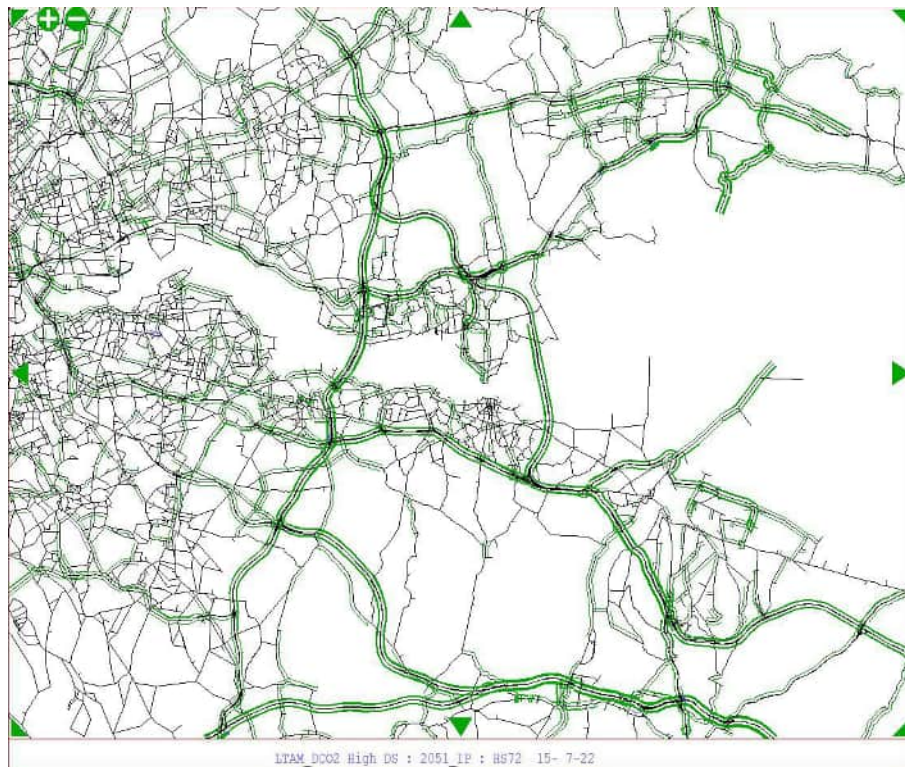
**Plate E.45 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2045  
DS PM Peak**



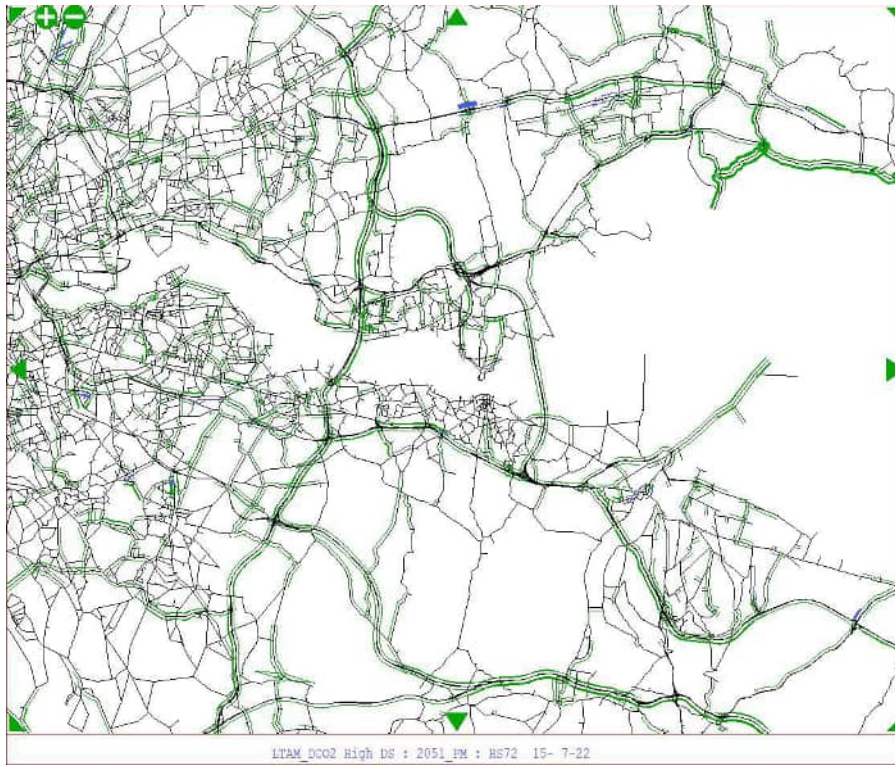
**Plate E.46 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051  
DS AM Peak**



**Plate E.47 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051  
DS Inter Peak**



**Plate E.48 Flow Difference Plot – High Growth Scenario Minus Core Scenario 2051  
DS PM Peak**



## Annex F Sensitivity Tests – Outputs to Operational Assessment

### F.1 Introduction

F.1.1 This appendix provides LTAM forecast model outputs for operational assessment for the low and high growth sensitivity tests for each of the forecast years. The analysis presented is similar to that produced for the core scenario in Chapter 9 of the main document. The statistics are provided for completeness. The key messages are generally the same as for the core scenario. No detailed commentary of these results is provided.

### F.2 LTAM Sensitivity Tests – Outputs to Operational Assessment

F.2.1 Plate F.1 to Plate F.12 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2030 low growth scenario.

F.2.2 Plate F.13 to Plate F.24 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2037 low growth scenario.

F.2.3 Plate F.25 to Plate F.36 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2045 low growth scenario.

F.2.4 Plate F.37 to Plate F.48 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2051 low growth scenario.

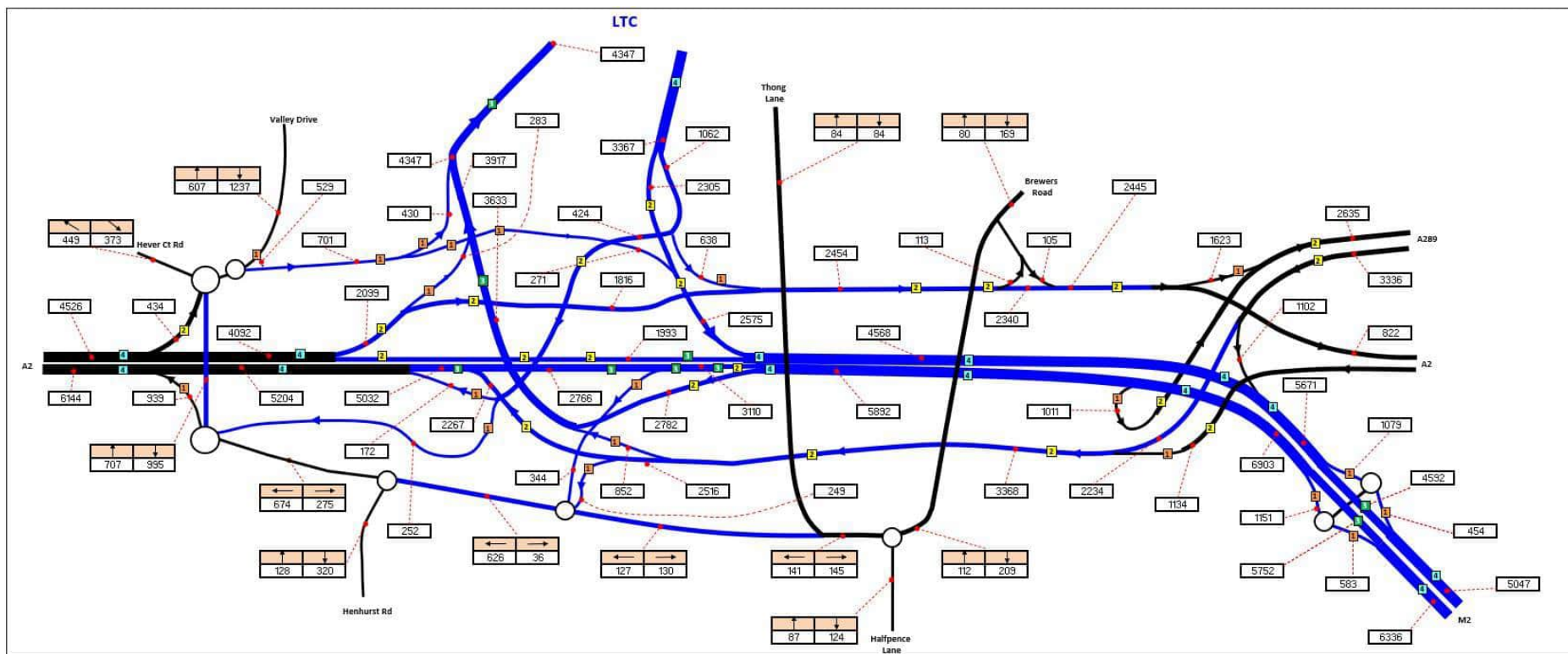
F.2.5 Plate F.49 to Plate F.60 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2030 high growth scenario.

F.2.6 Plate F.61 to Plate F.72 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2037 high growth scenario.

F.2.7 Plate F.73 to Plate F.84 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2045 high growth scenario.

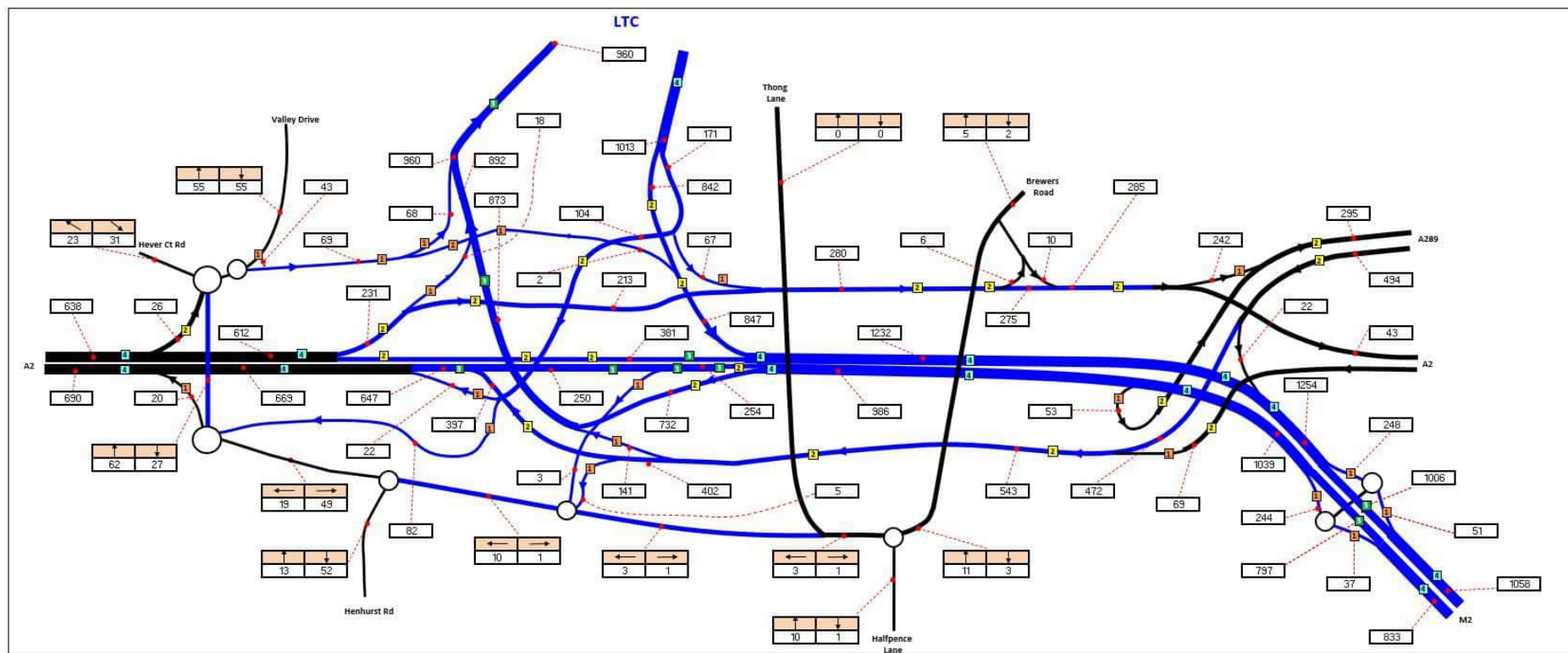
F.2.8 Plate F.85 to Plate F.96 provide traffic flow information at the three LTC junctions for All Vehicles and HGV for the morning and evening peak for the 2051 high growth scenario.

**Plate F.1 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 Low Growth AM Peak All Vehicles (PCUs)**

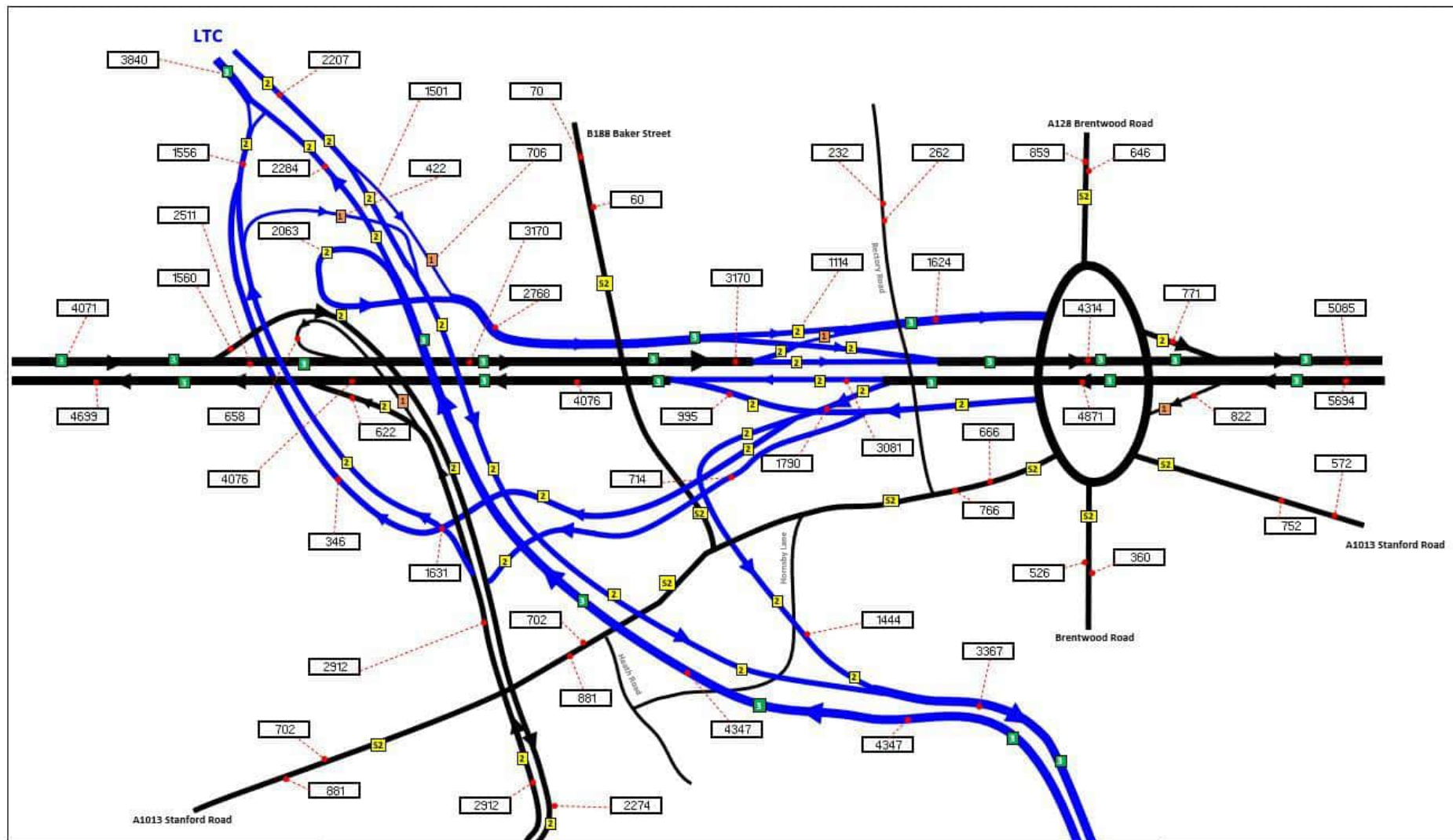




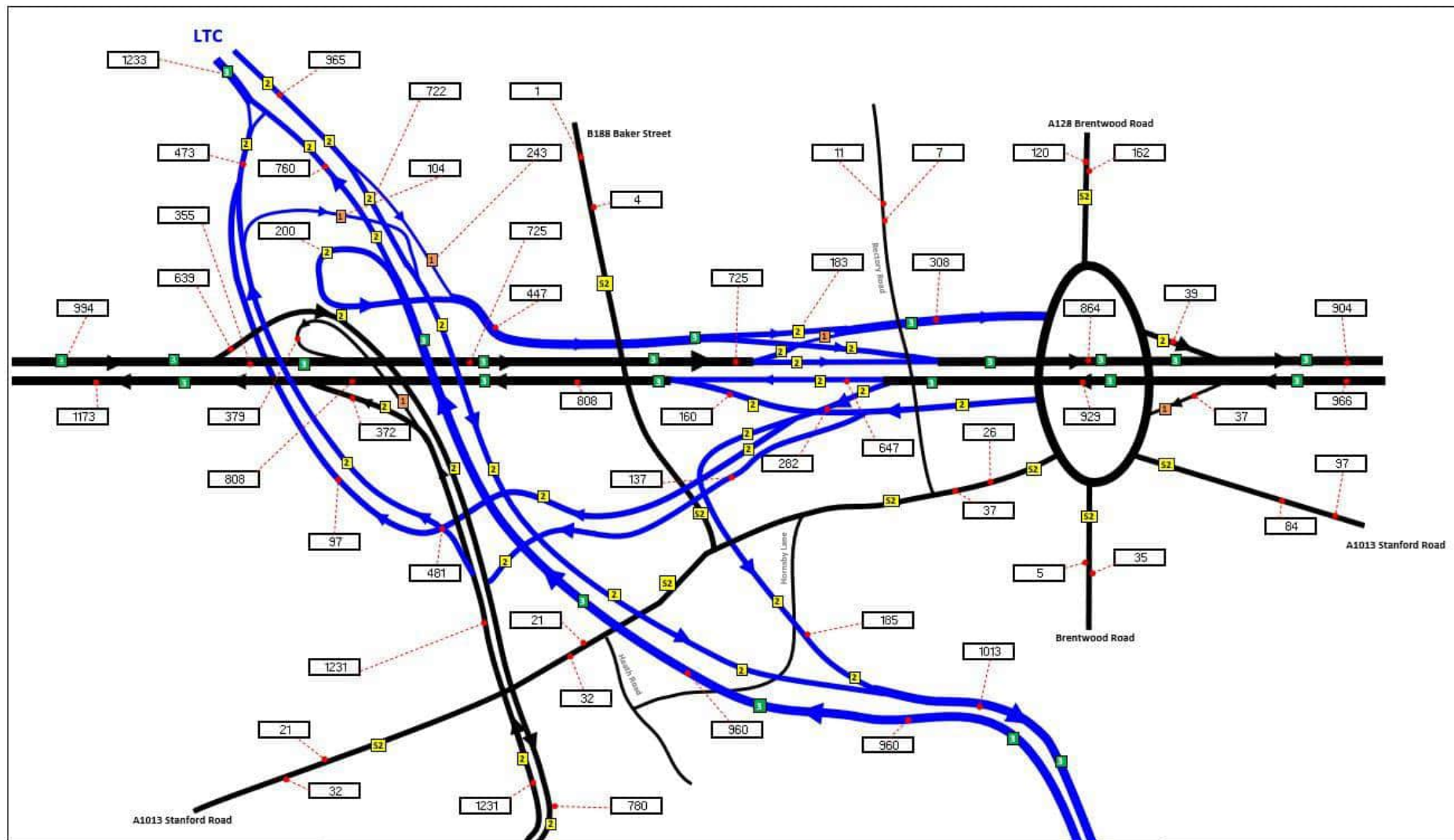
**Plate F.2 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 Low Growth AM Peak HGV (PCUs)**



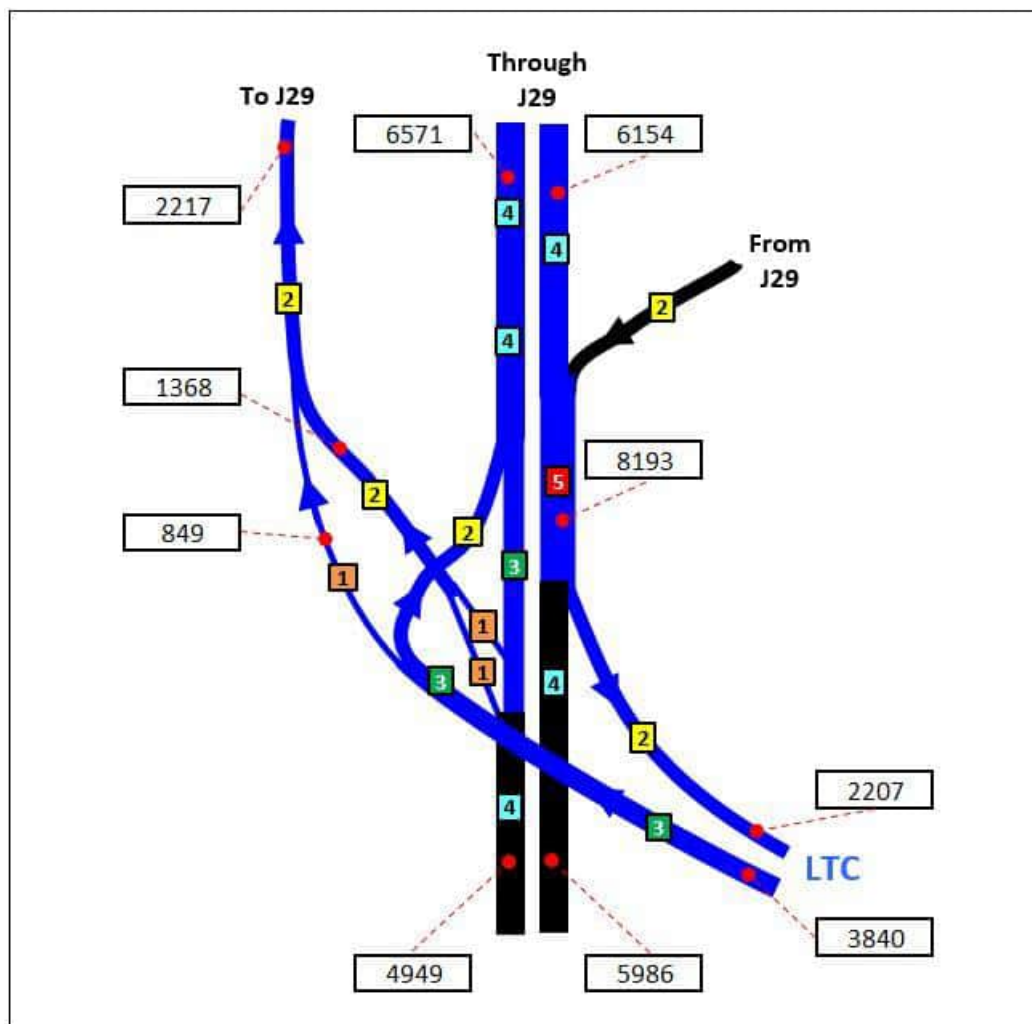
**Plate F.3 LTC Junction with A13 – LTAM Predicted Traffic Flows 2030 Low Growth AM Peak All Vehicles (PCUs)**



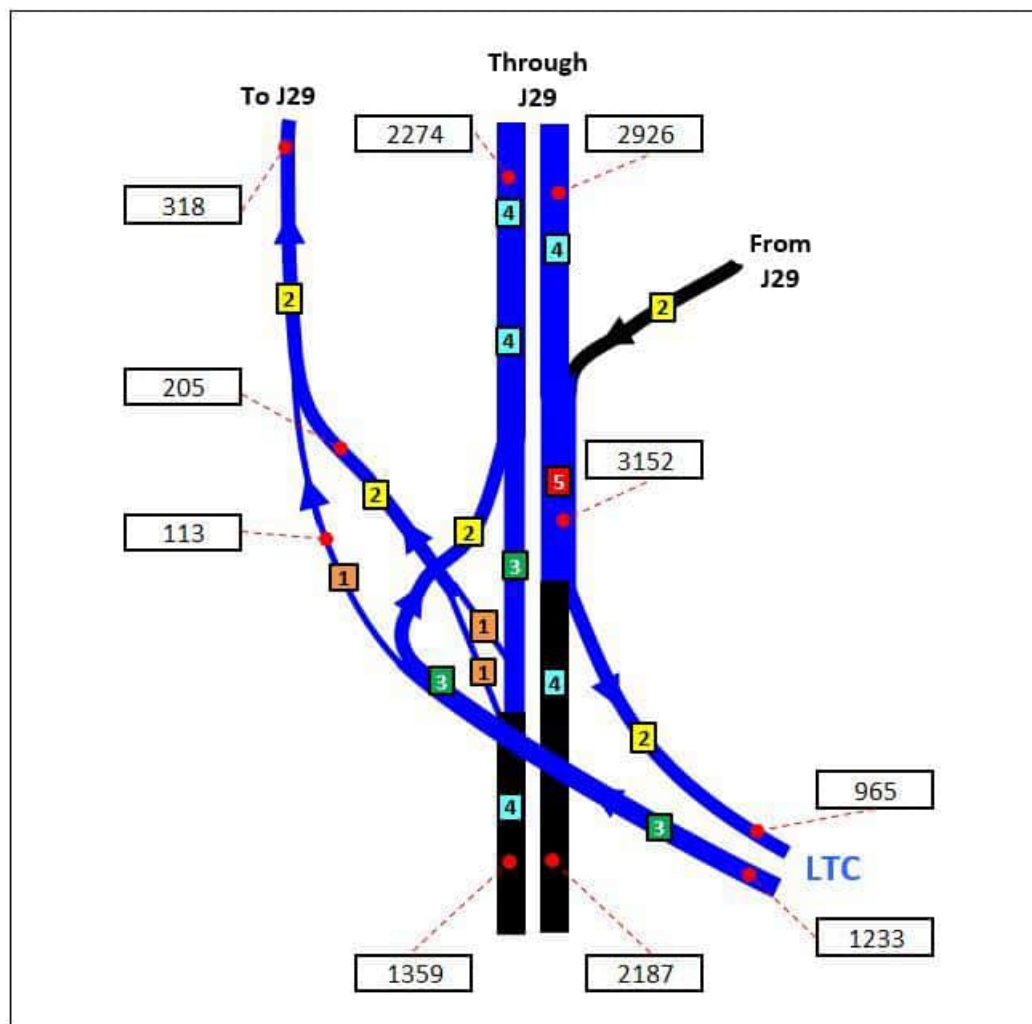
**Plate F.4 LTC Junction with A13 – LTAM Predicted Traffic Flows 2030 Low Growth AM Peak HGV (PCUs)**



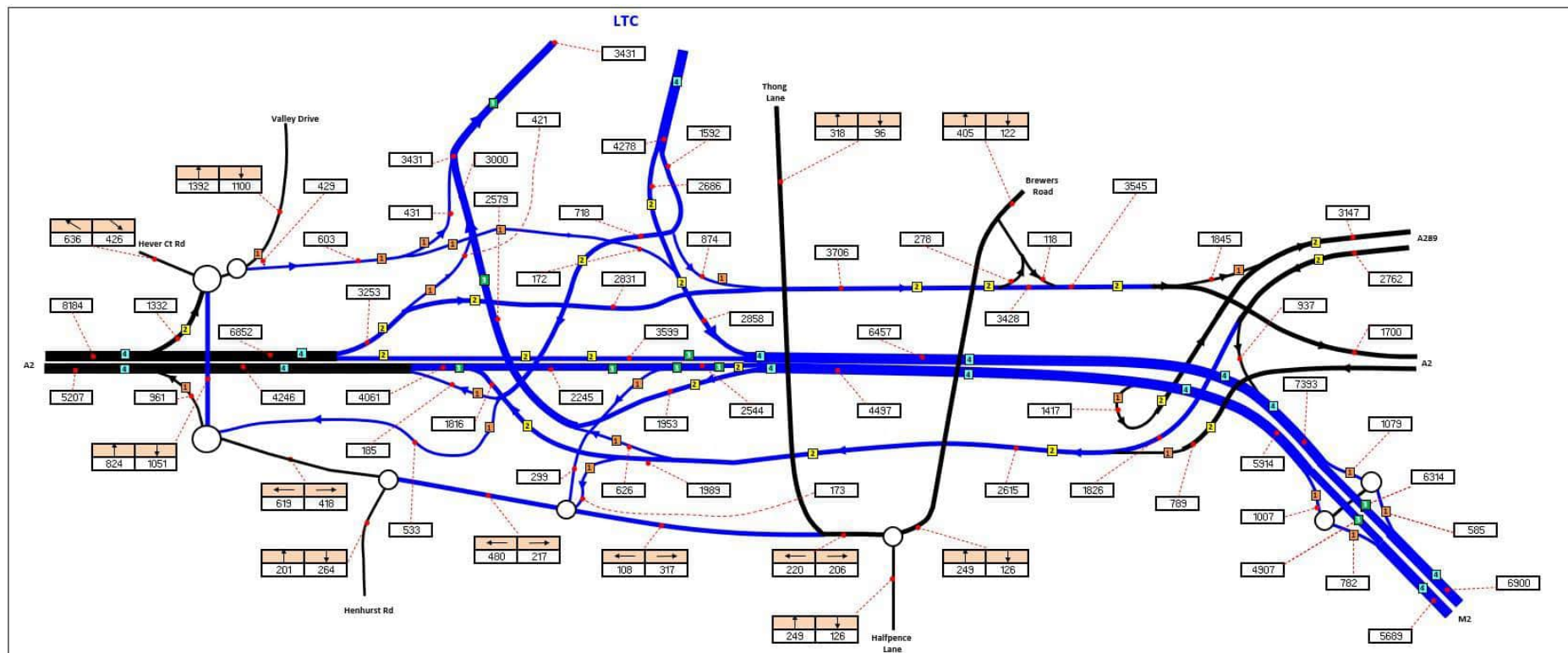
**Plate F.5 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 Low Growth AM Peak All Vehicles (PCUs)**



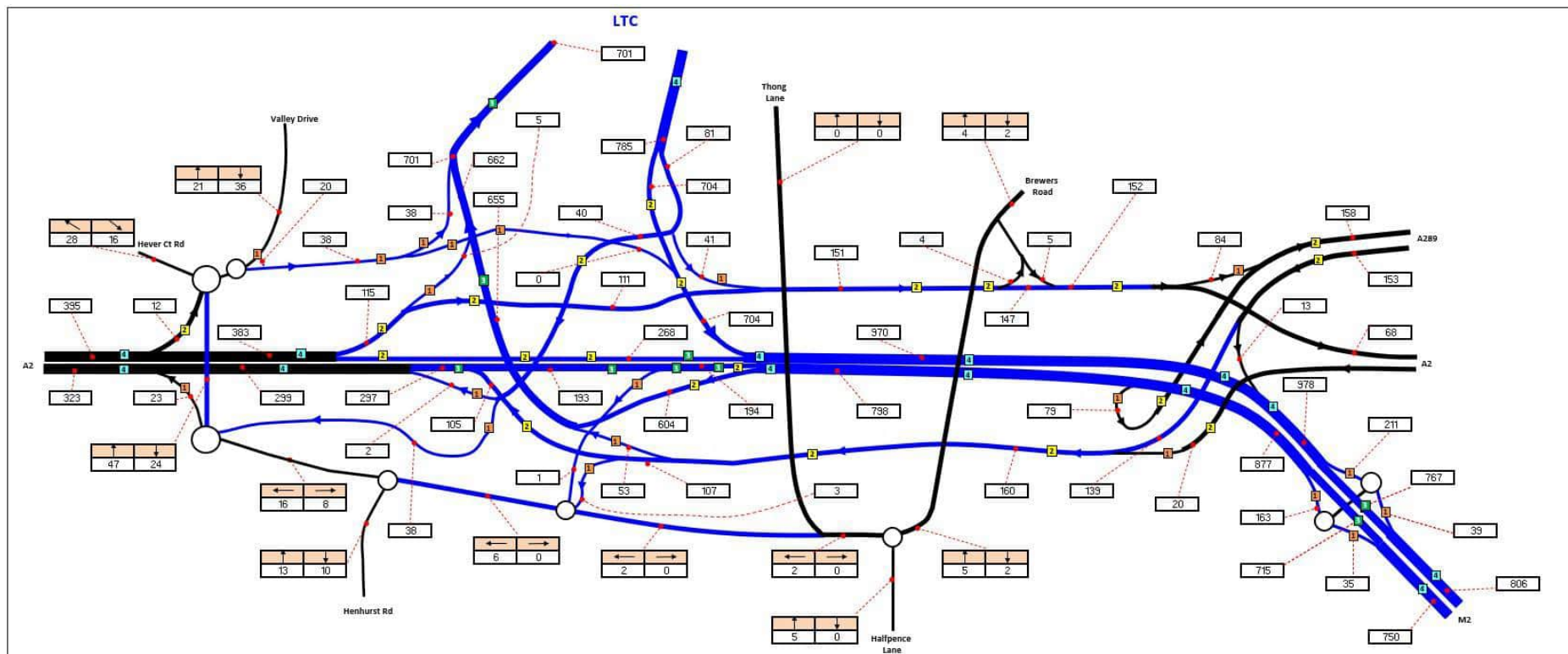
**Plate F.6 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 Low Growth AM Peak HGV (PCUs)**



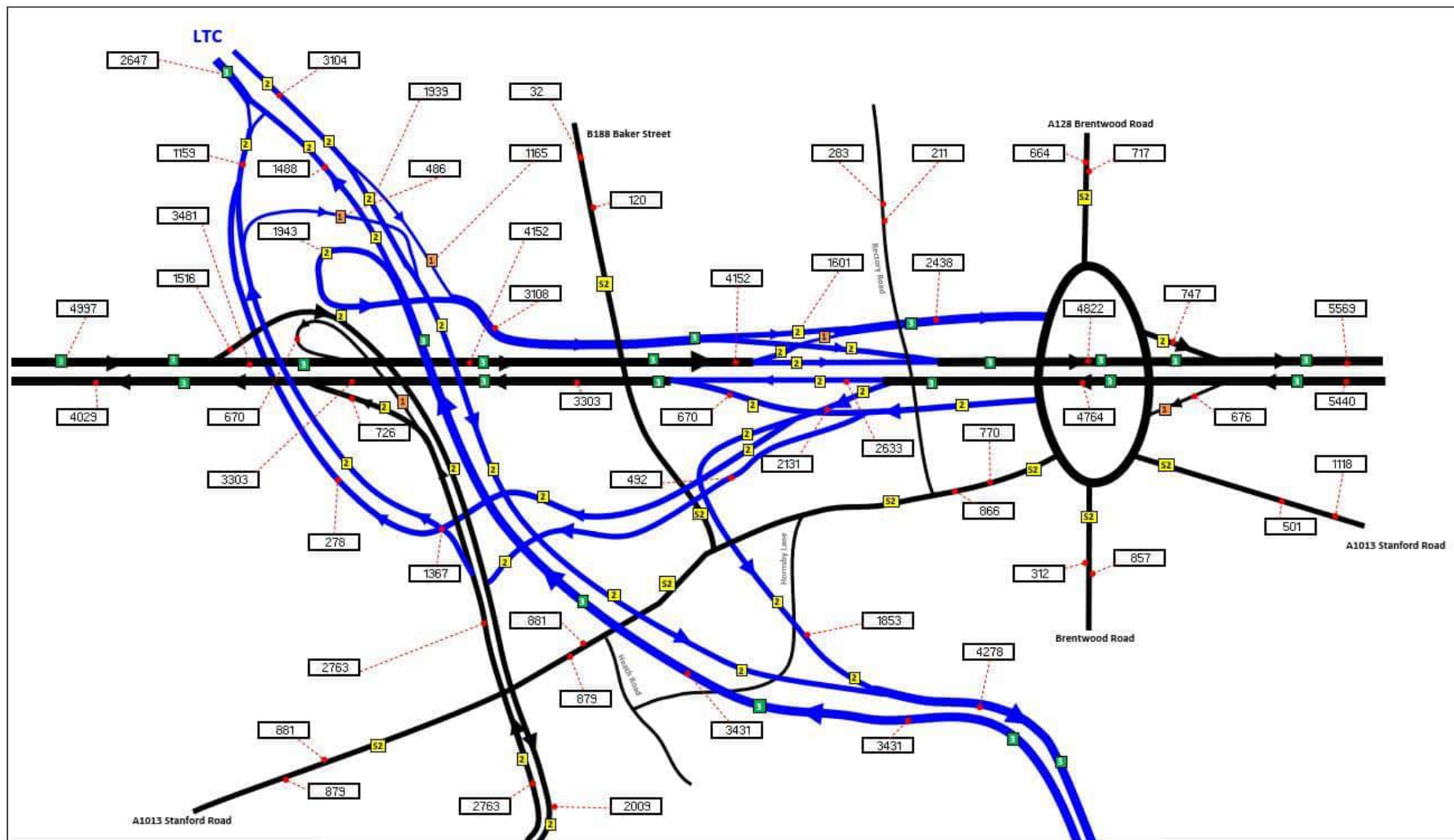
**Plate F.7 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 Low Growth PM Peak All Vehicles (PCUs)**



**Plate F.8 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 Low Growth PM Peak HGVS (PCUs)**

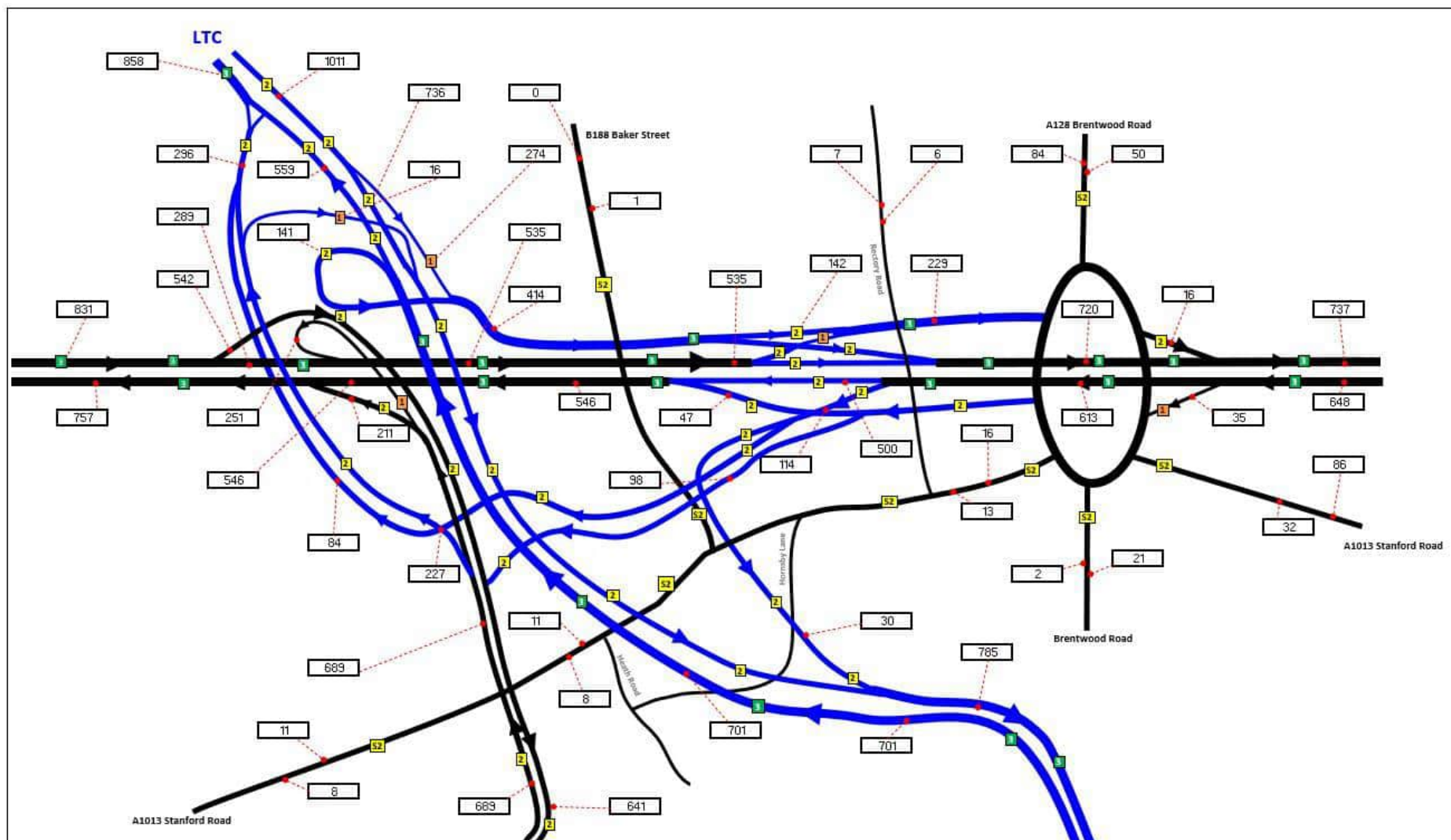


**Plate F.9 LTC Junction with A13 – LTAM Predicted Traffic Flows 2030 Low Growth PM Peak All Vehicles (PCUs)**

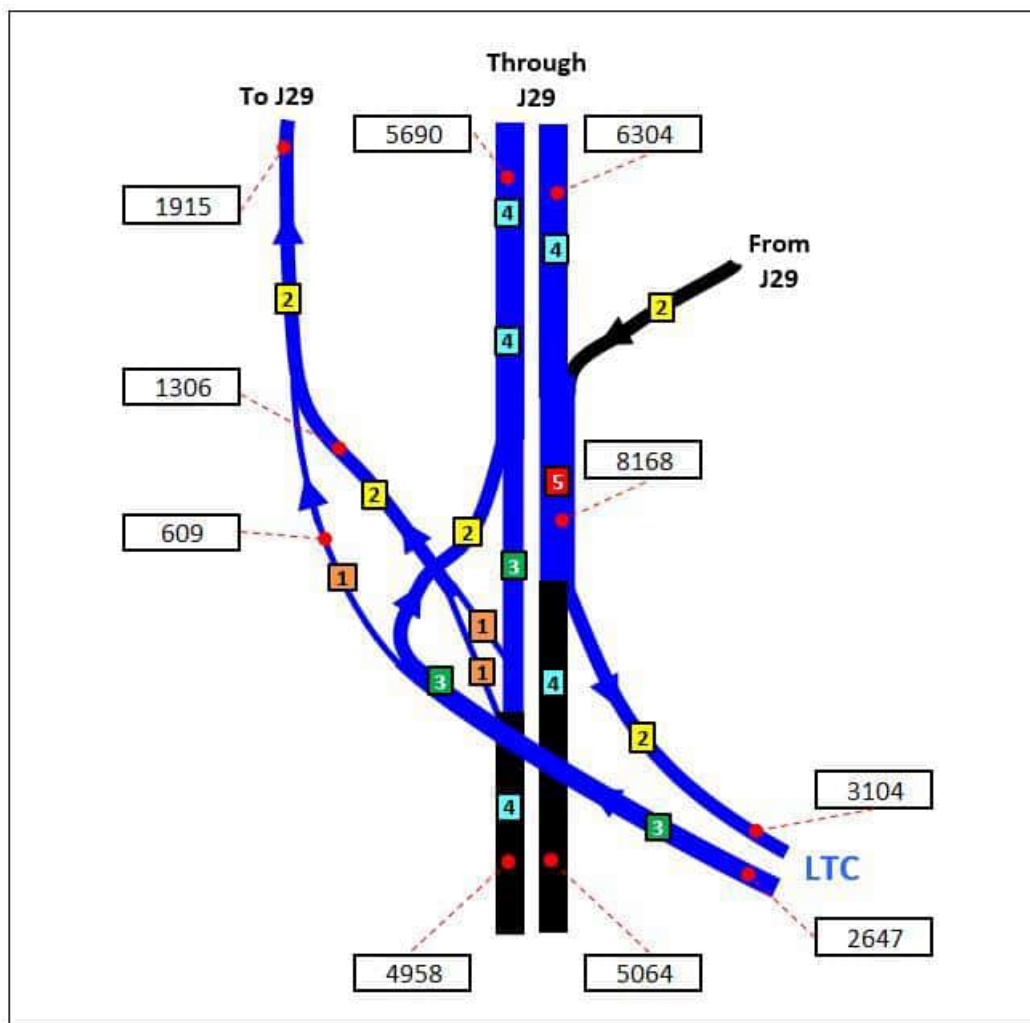




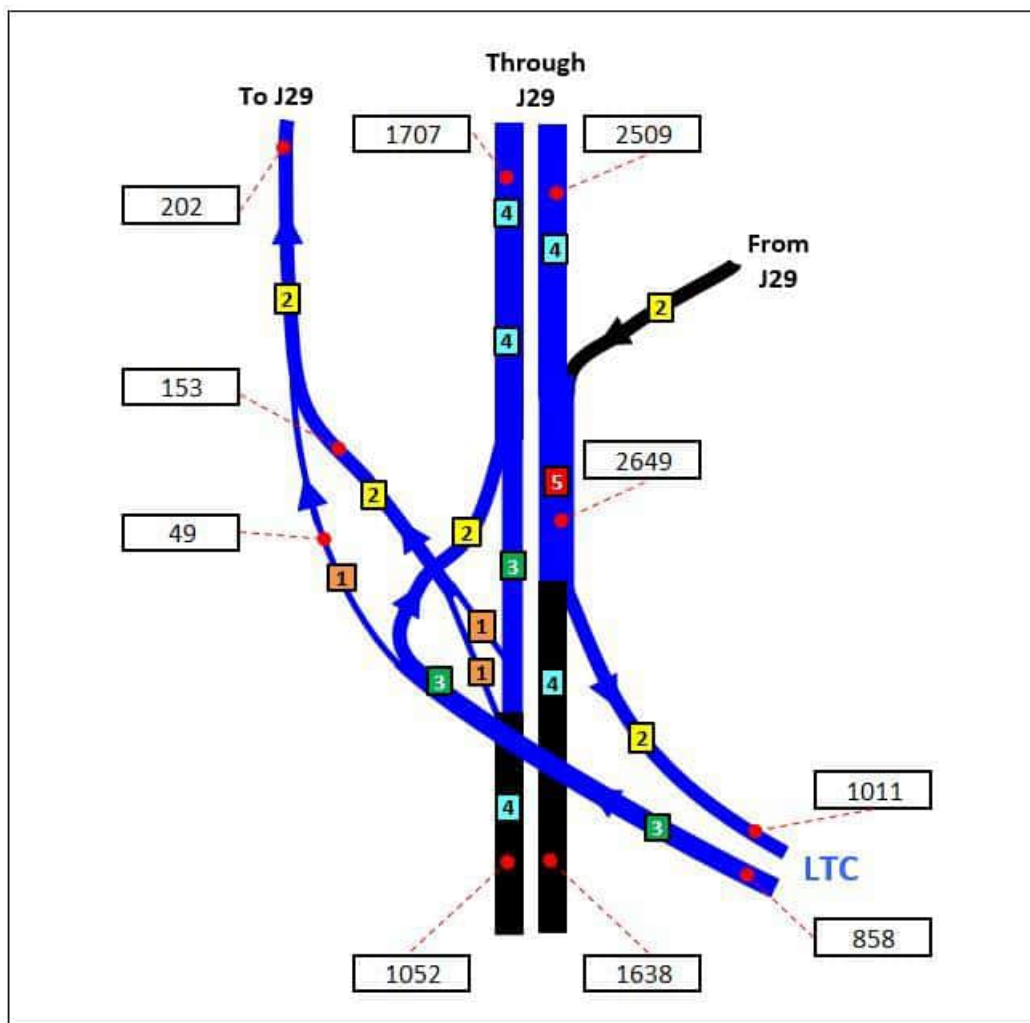
**Plate F.10 LTC Junction with A13 – LTAM Predicted Traffic Flows 2030 Low Growth PM Peak HGV (PCUs)**



**Plate F.11 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 Low Growth PM Peak All Vehicles (PCUs)**

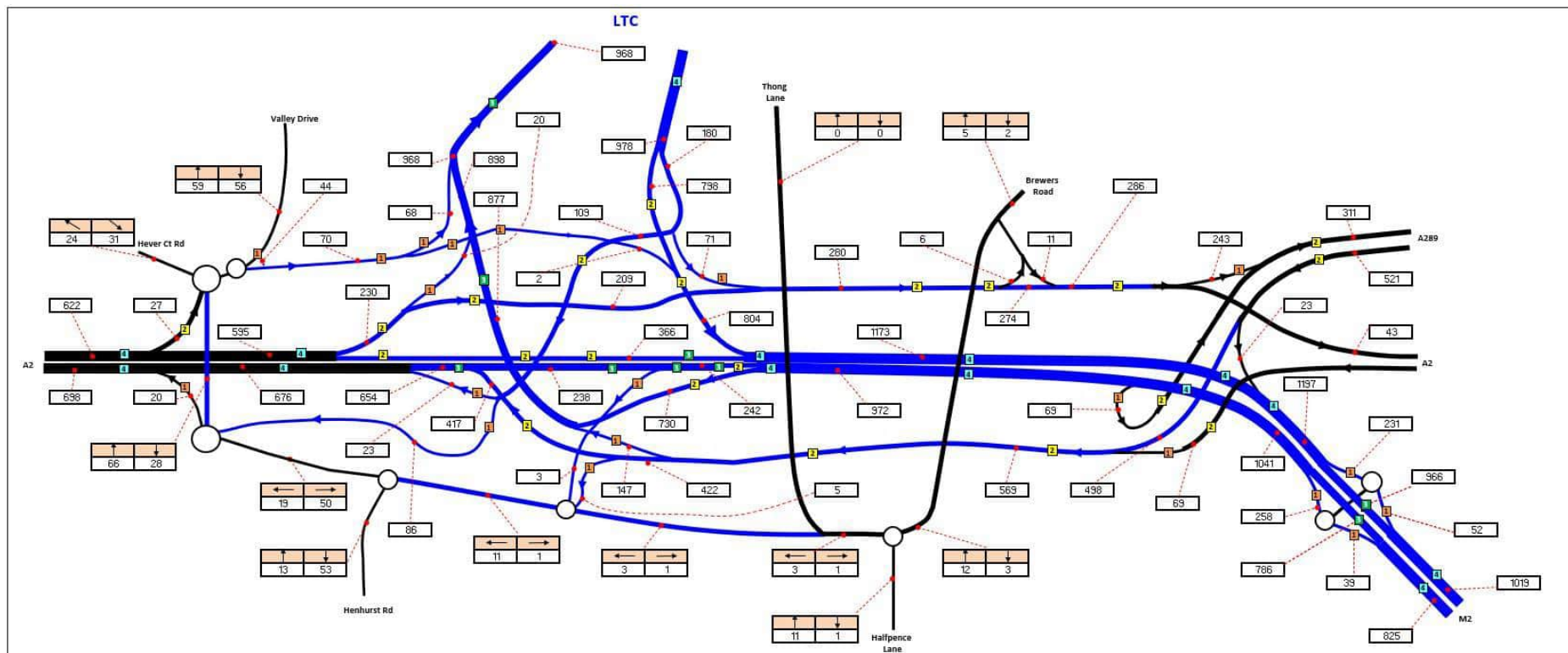


**Plate F.12 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 Low Growth PM Peak HGVS (PCUs)**



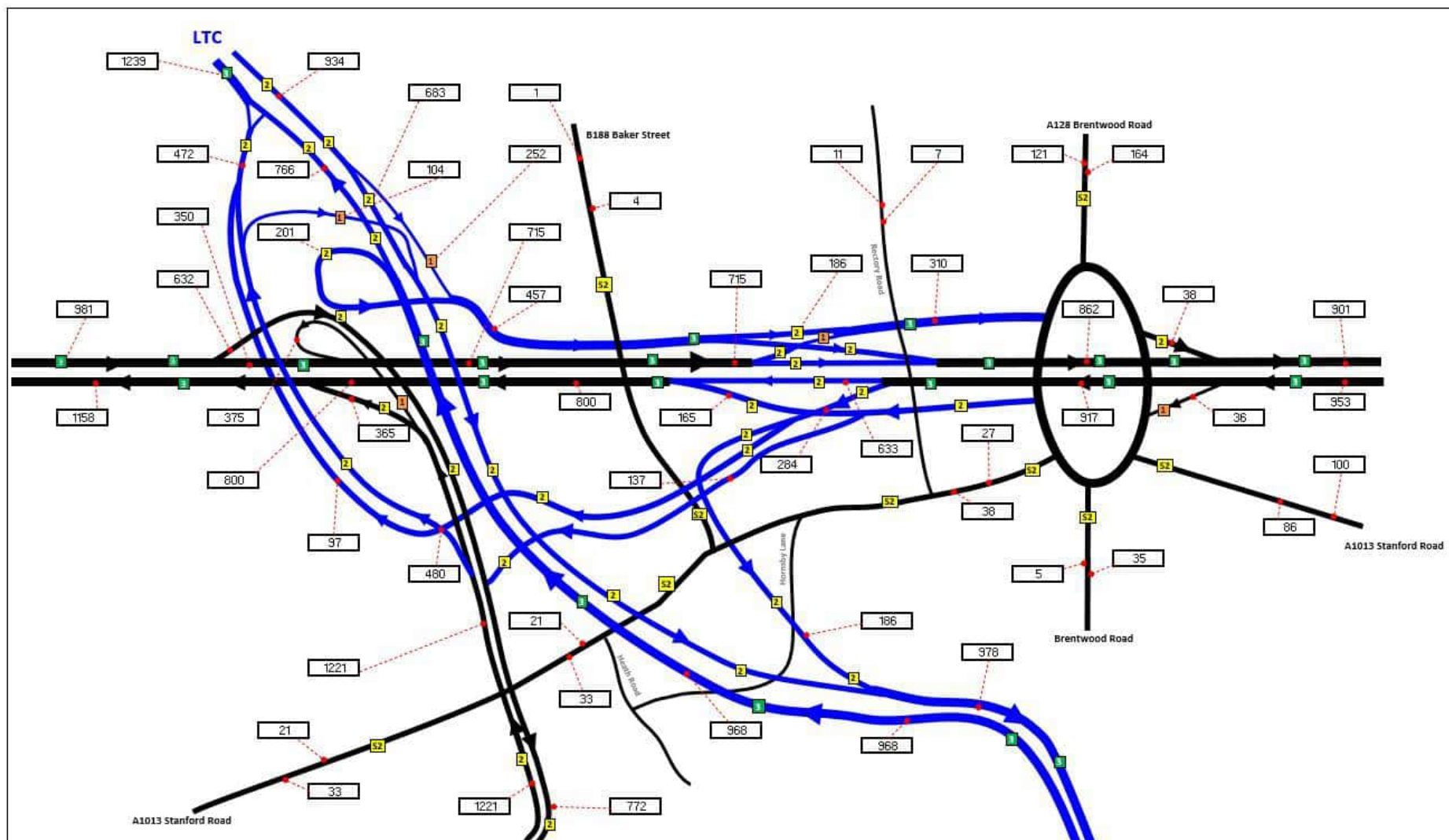


**Plate F.14 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2037 Low Growth AM Peak HGV (PCUs)**

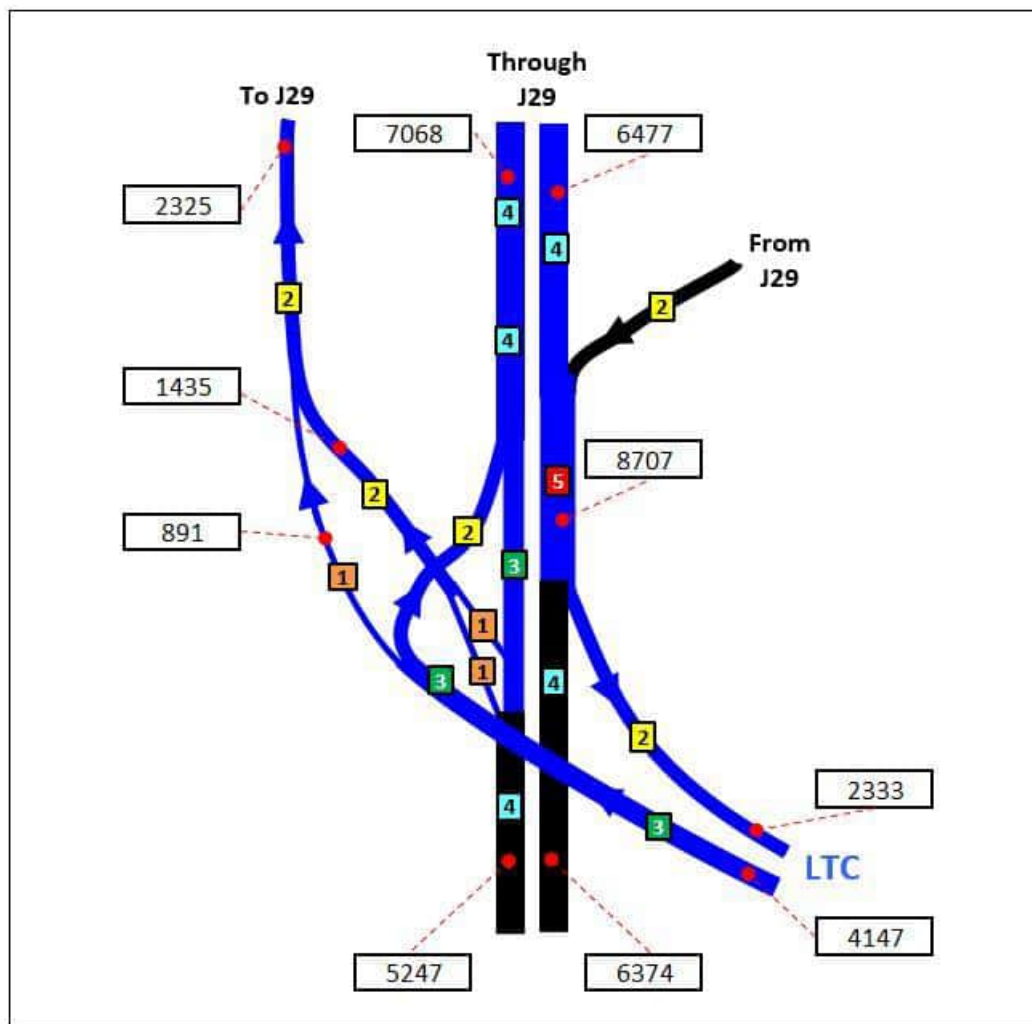




**Plate F.16 LTC Junction with A13 – LTAM Predicted Traffic Flows 2037 Low Growth AM Peak HGVS (PCUs)**

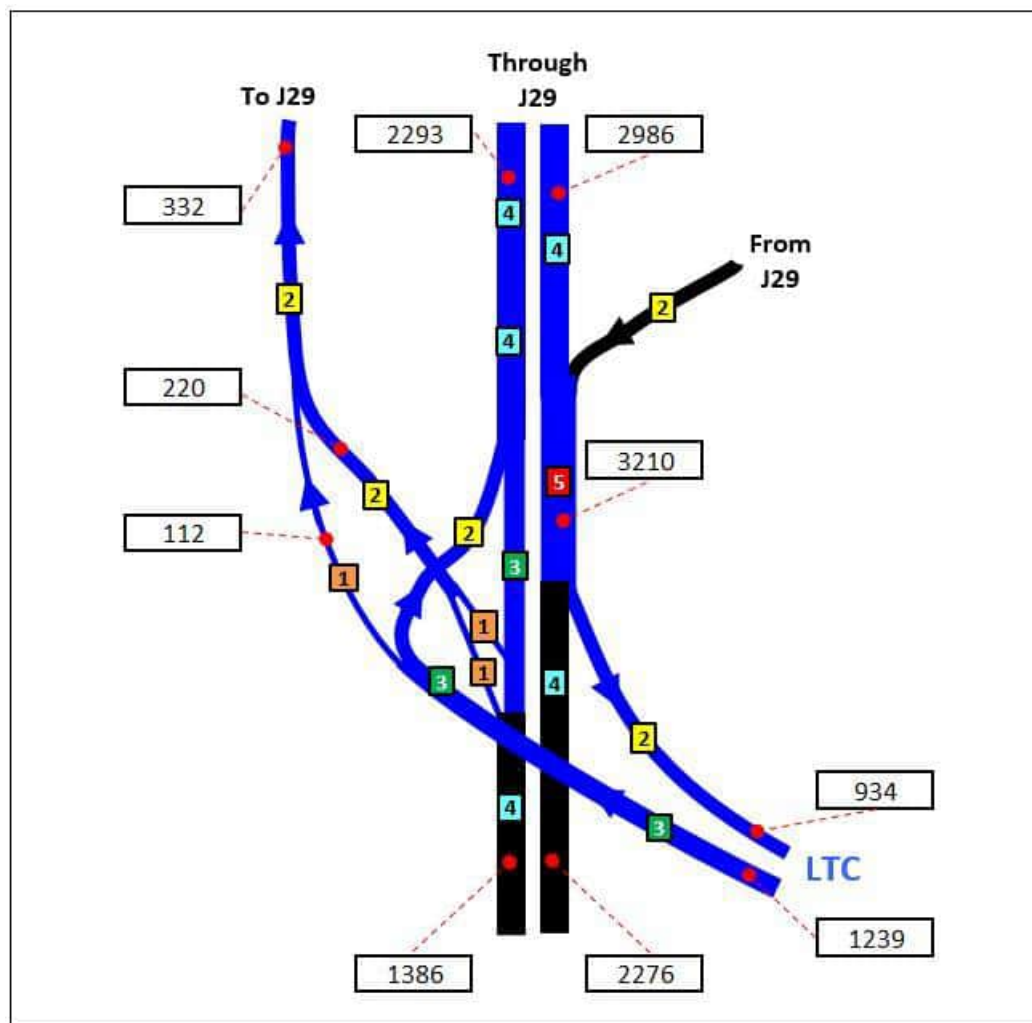


**Plate F.17 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 Low Growth AM Peak All Vehicles (PCUs)**



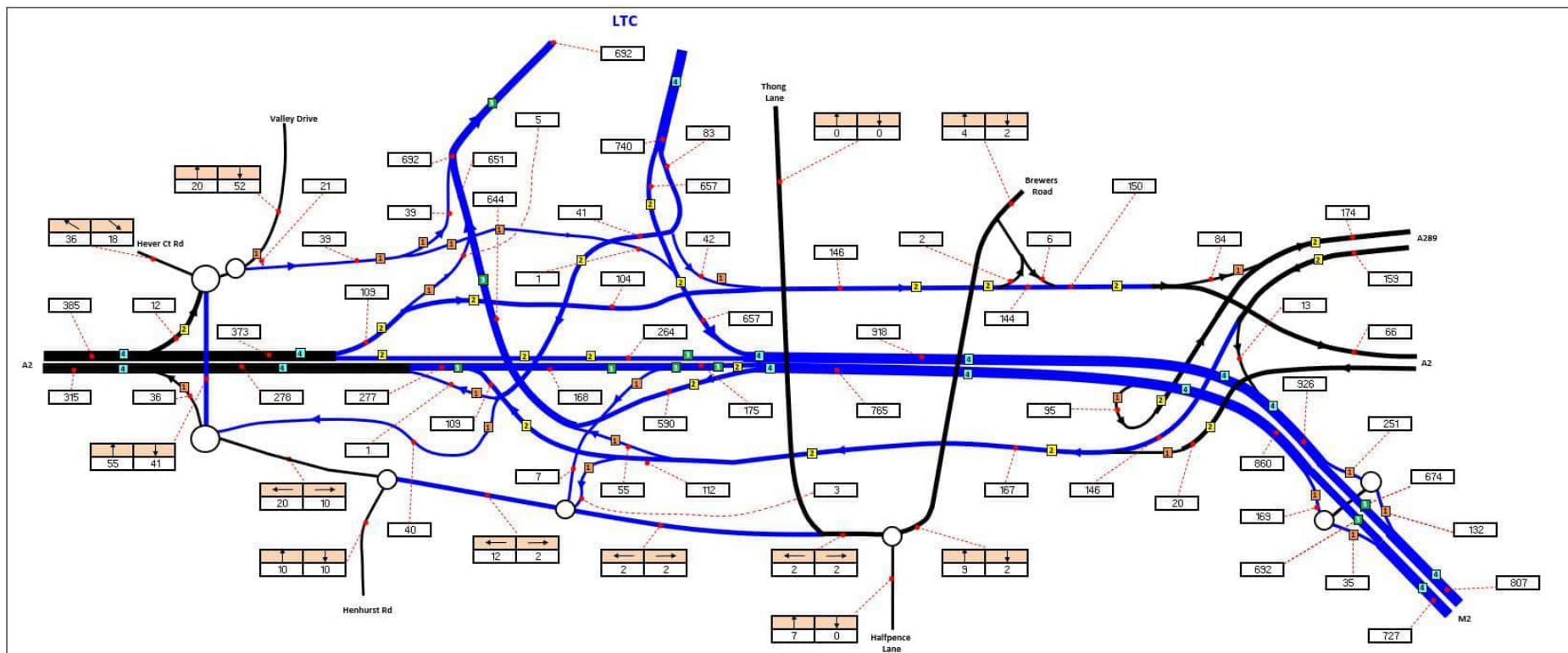


**Plate F.18 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 Low Growth AM Peak HGVS (PCUs)**





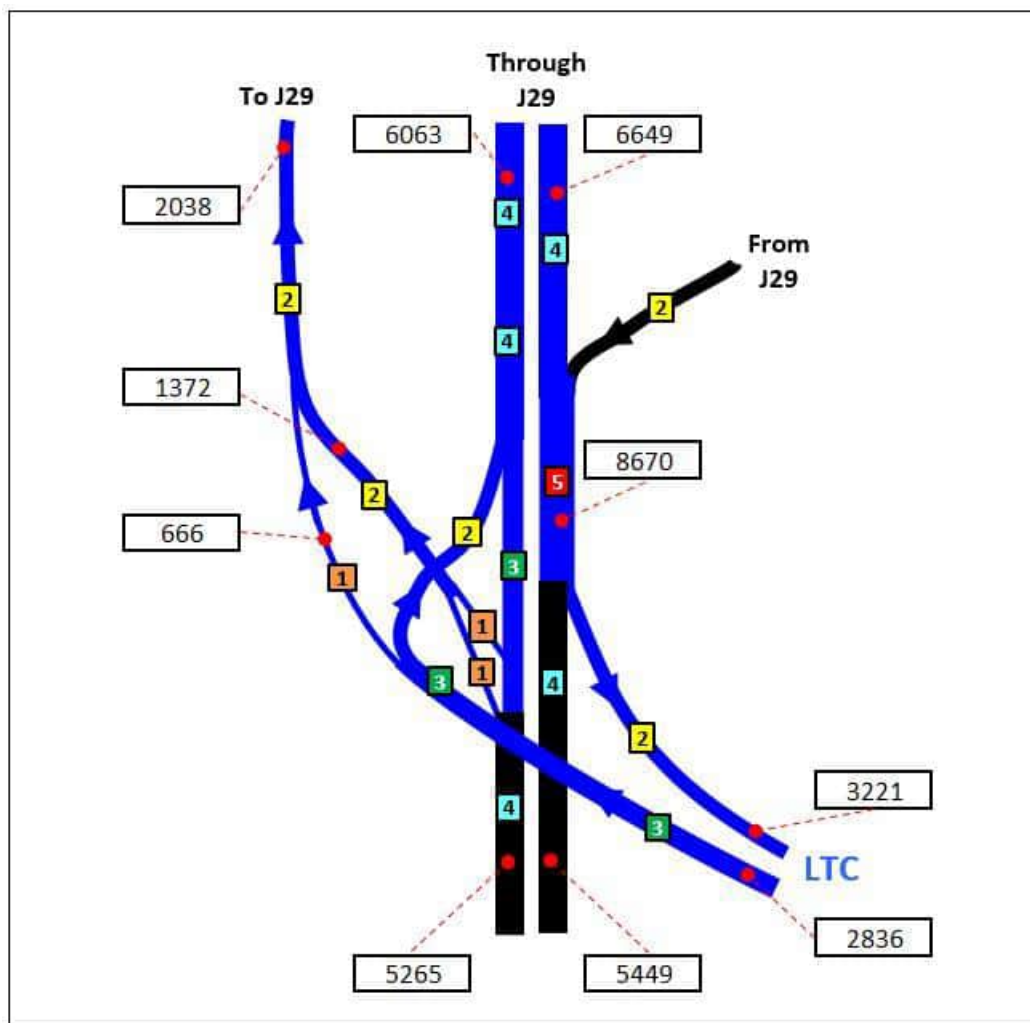
**Plate F.20 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2037 Low Growth PM Peak HGV (PCUs)**



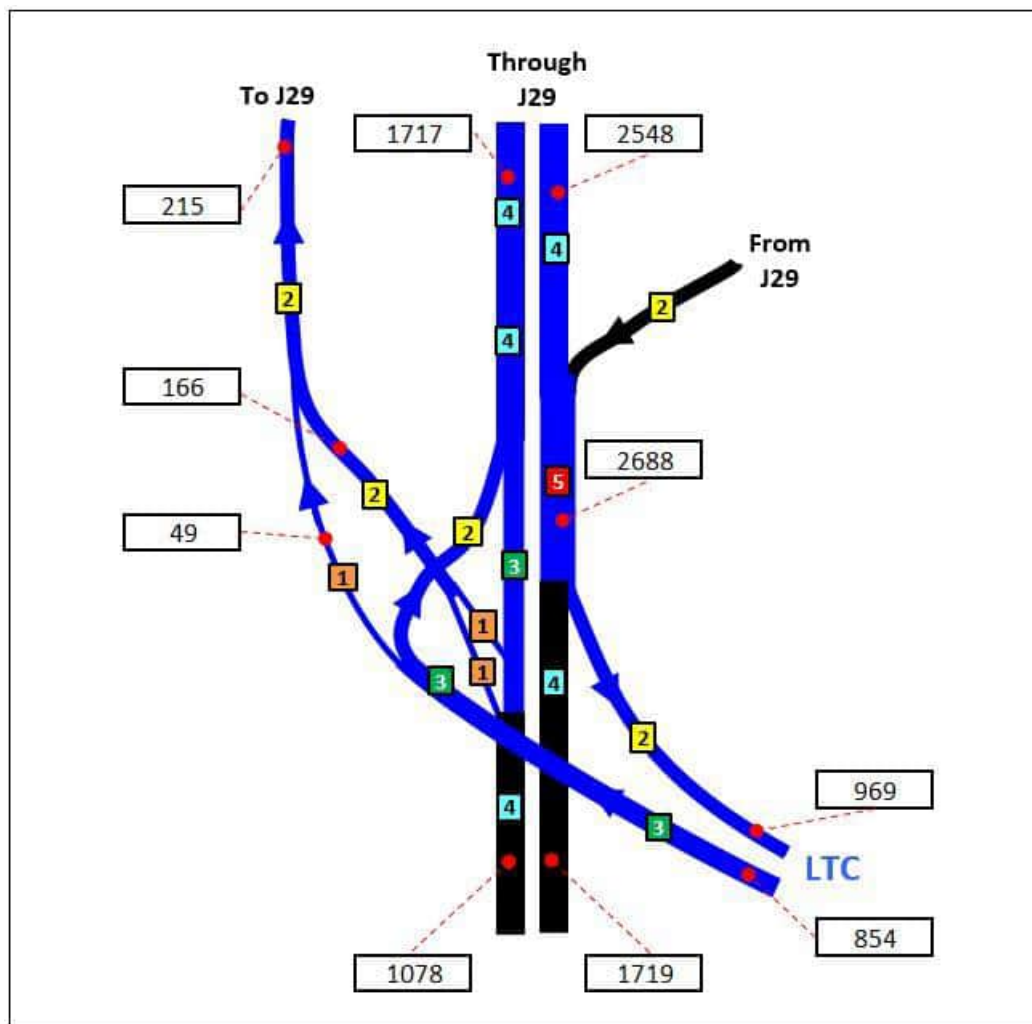




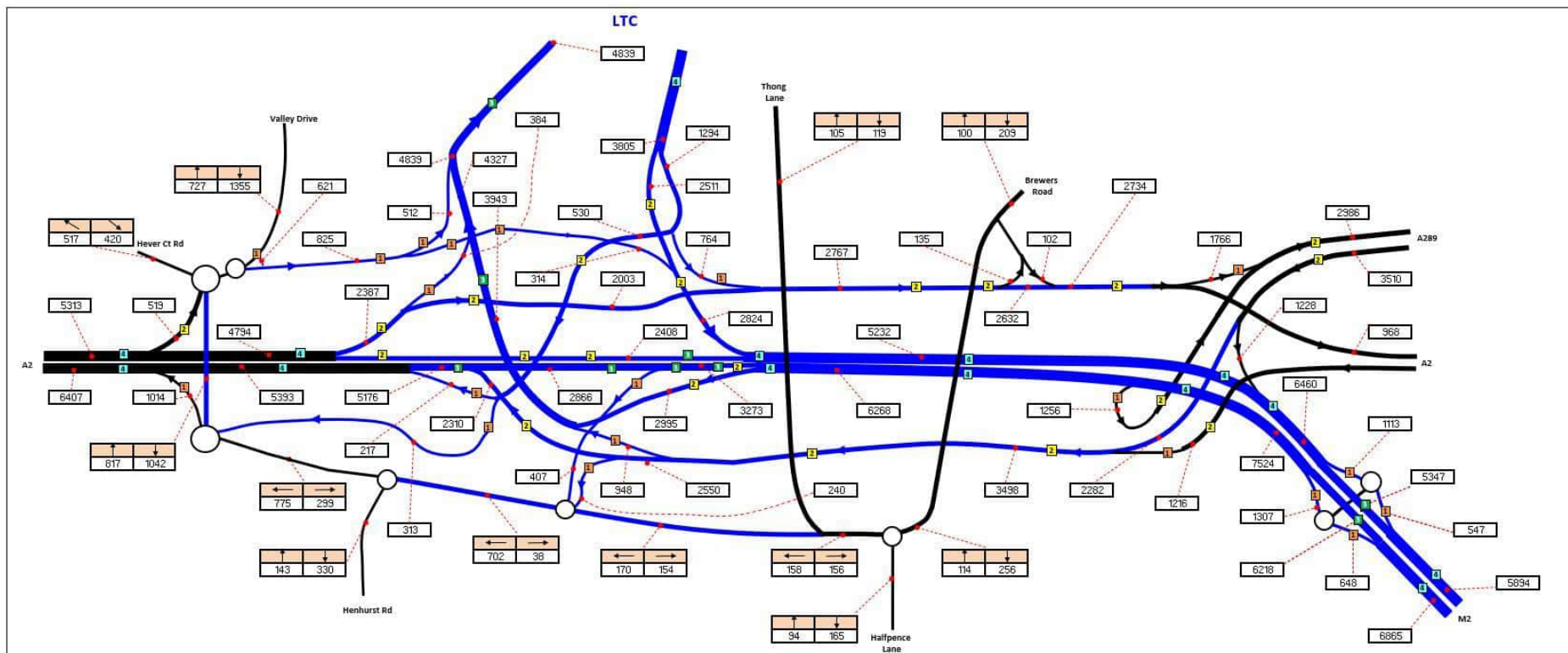
**Plate F.23 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 Low Growth PM Peak All Vehicles (PCUs)**



**Plate F.24 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 Low Growth PM Peak HGVS (PCUs)**

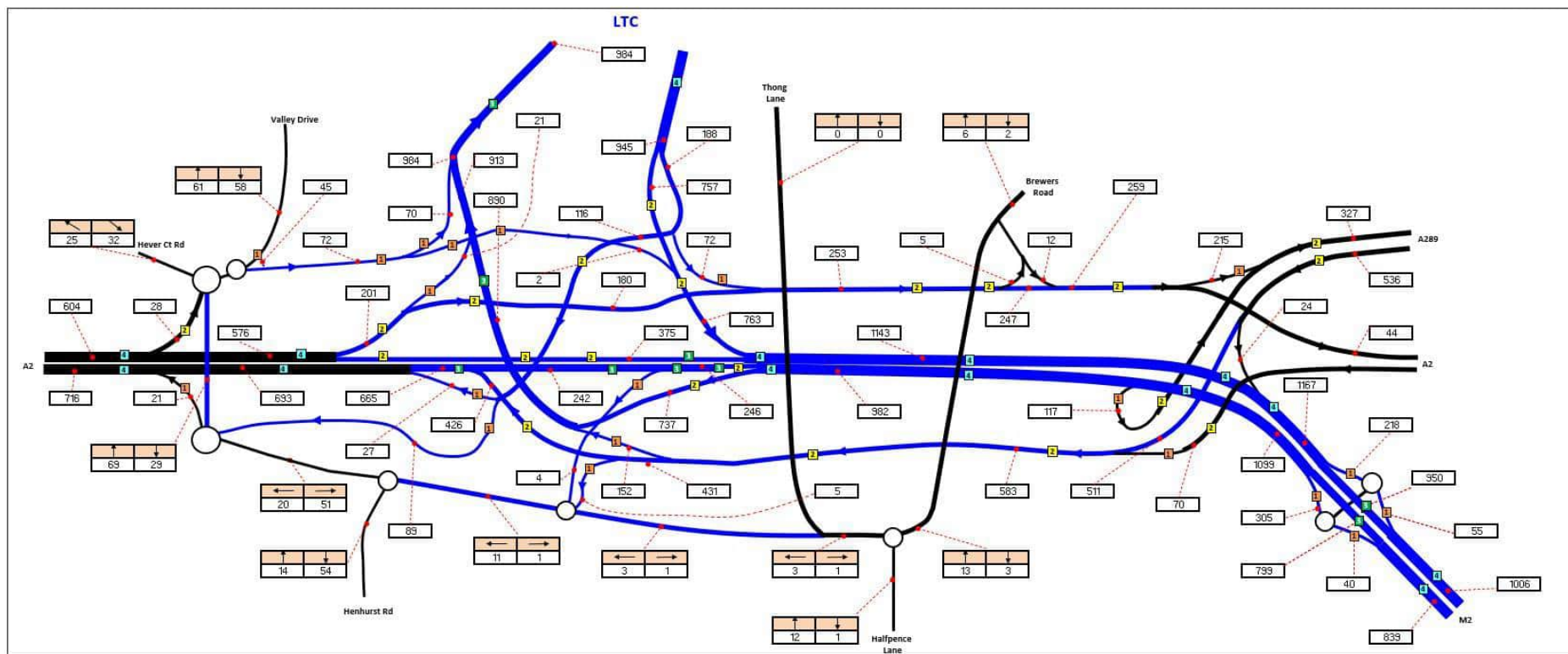


**Plate F.25 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2045 Low Growth AM Peak All Vehicles (PCUs)**





**Plate F.26 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2045 Low Growth AM Peak HGV (PCUs)**



**Plate F.27 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 Low Growth AM Peak All Vehicles (PCUs)**

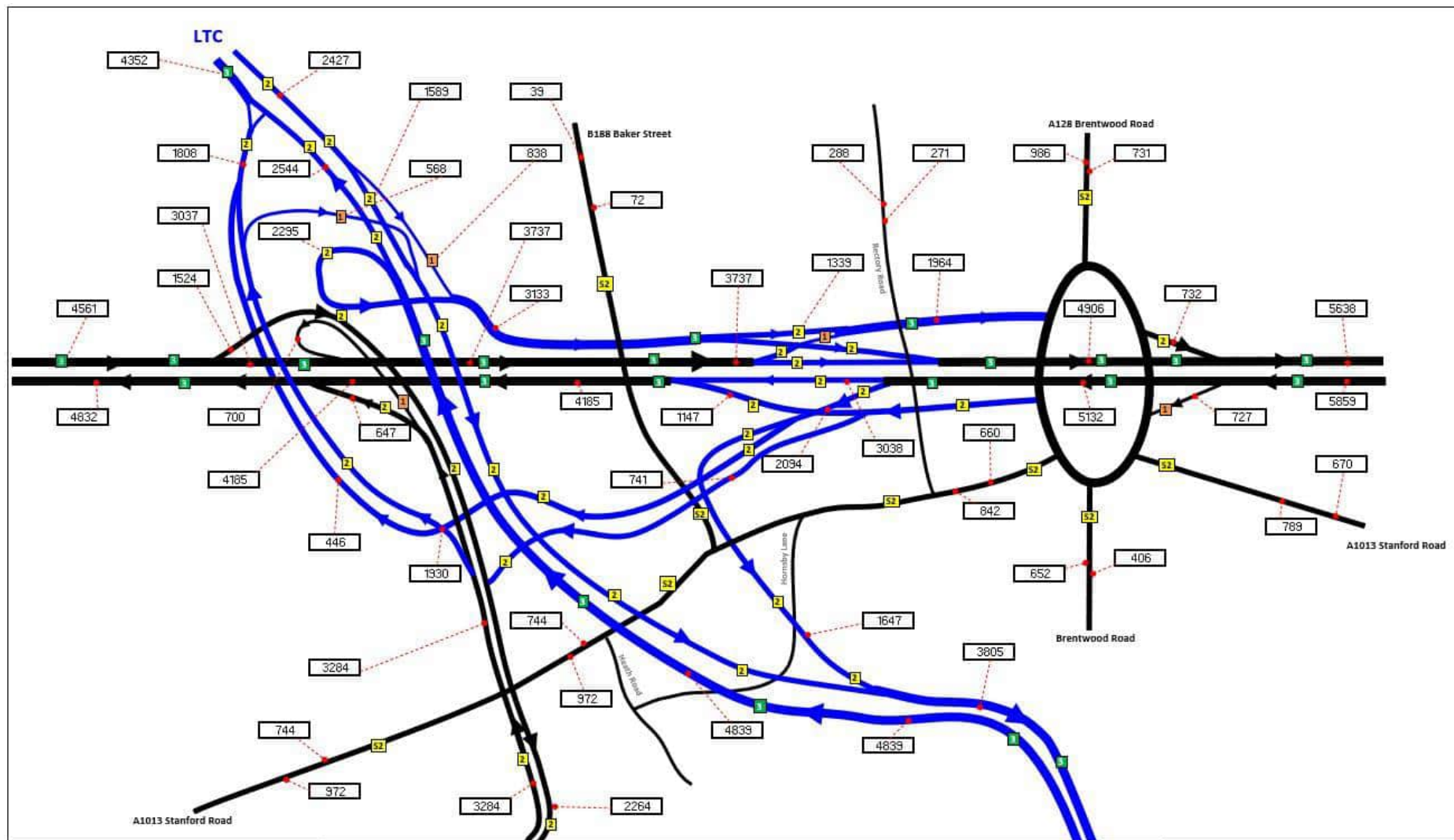
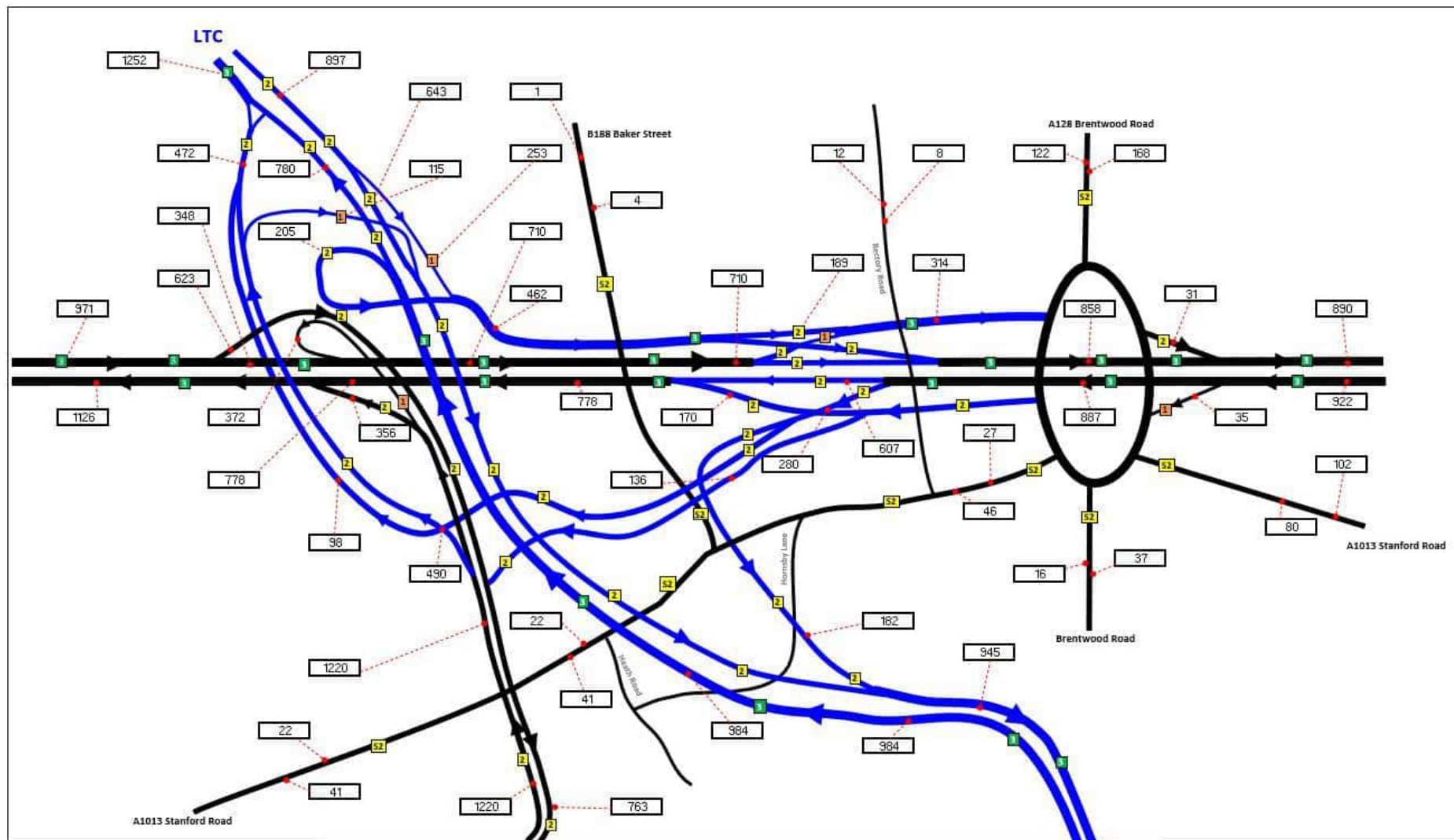
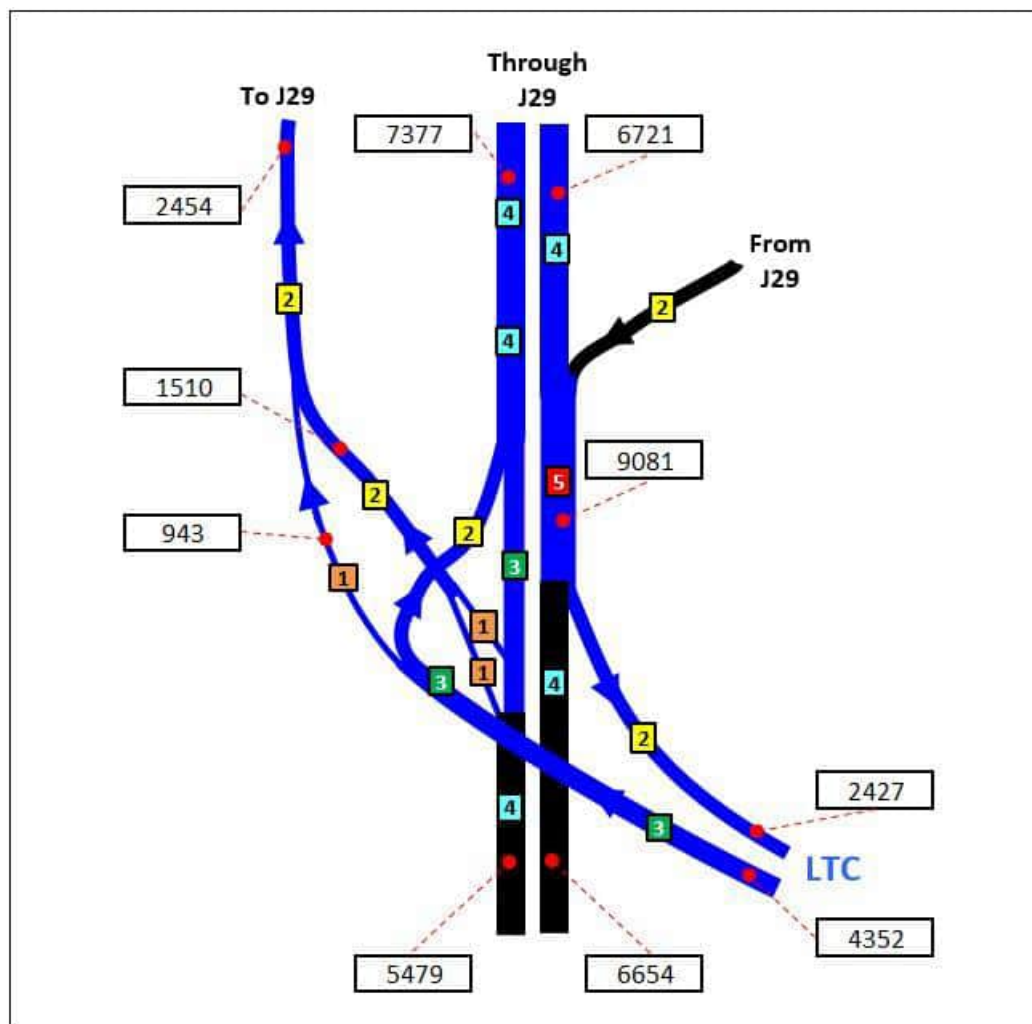


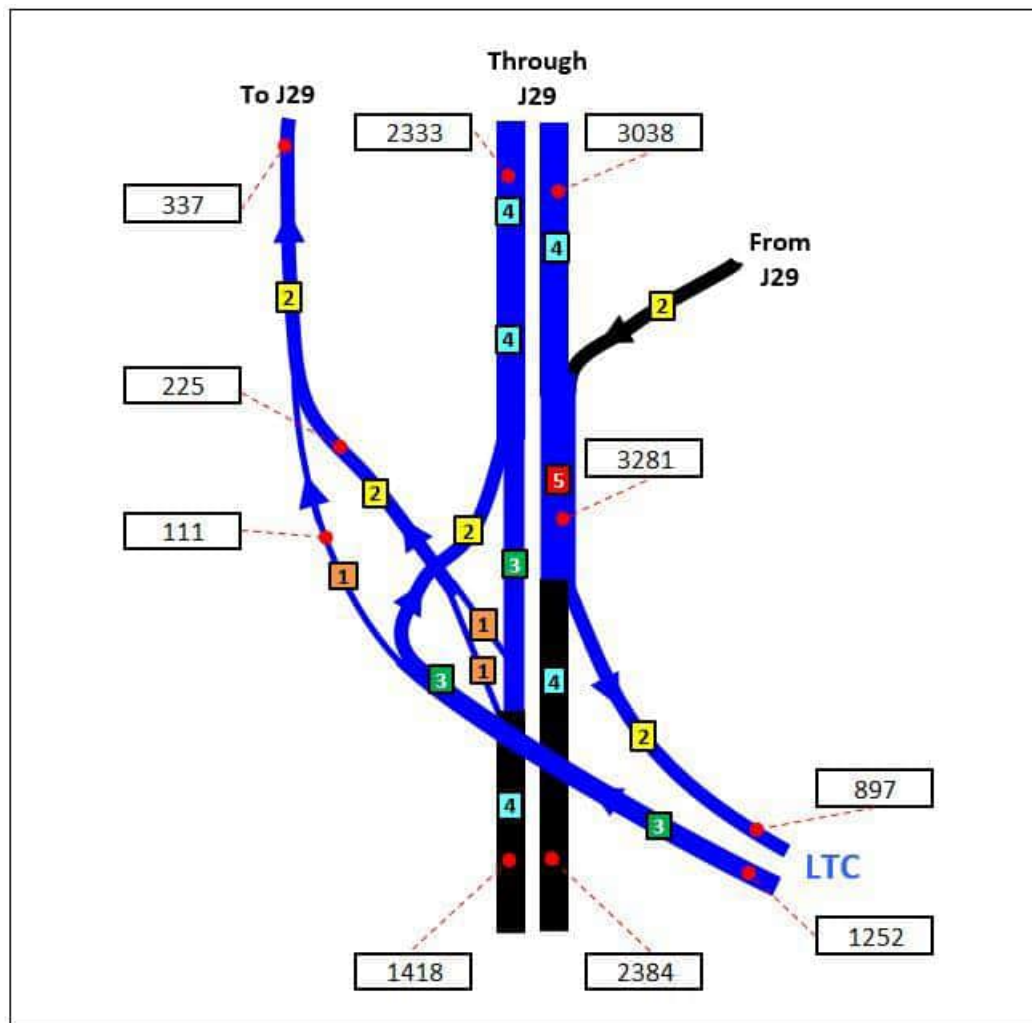
Plate F.28 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 Low Growth AM Peak HGV (PCUs)



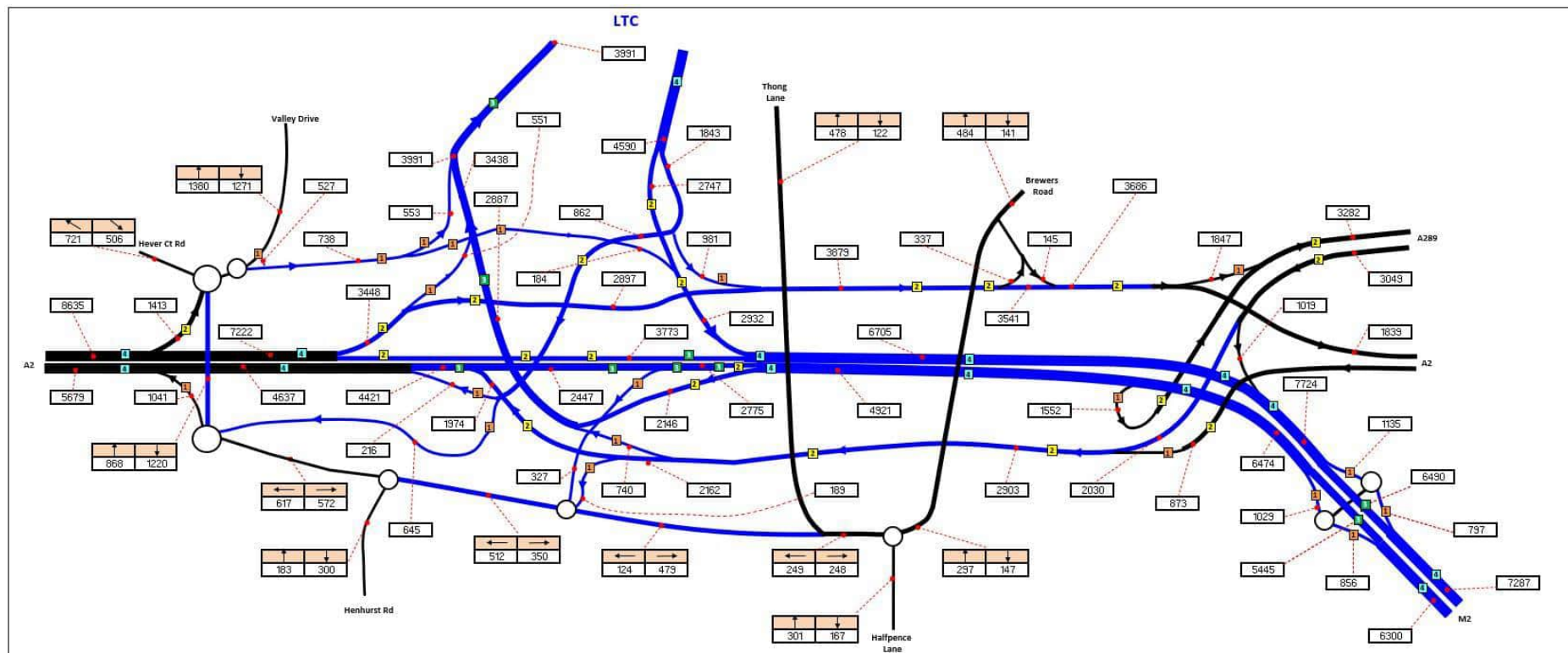
**Plate F.29 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 Low Growth AM Peak All Vehicles (PCUs)**



**Plate F.30 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 Low Growth AM Peak HGVS (PCUs)**

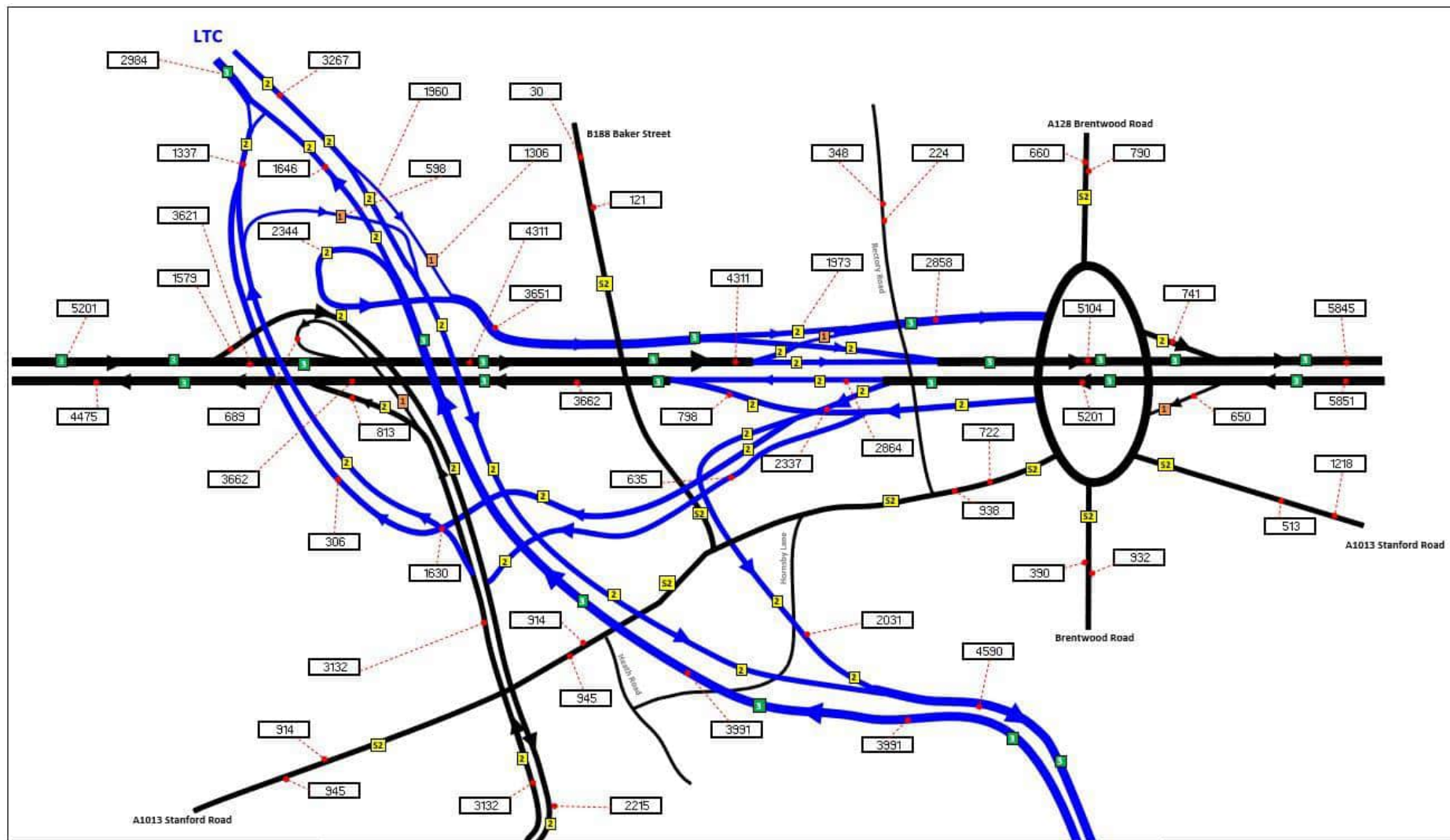


**Plate F.31 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2045 Low Growth PM Peak All Vehicles (PCUs)**



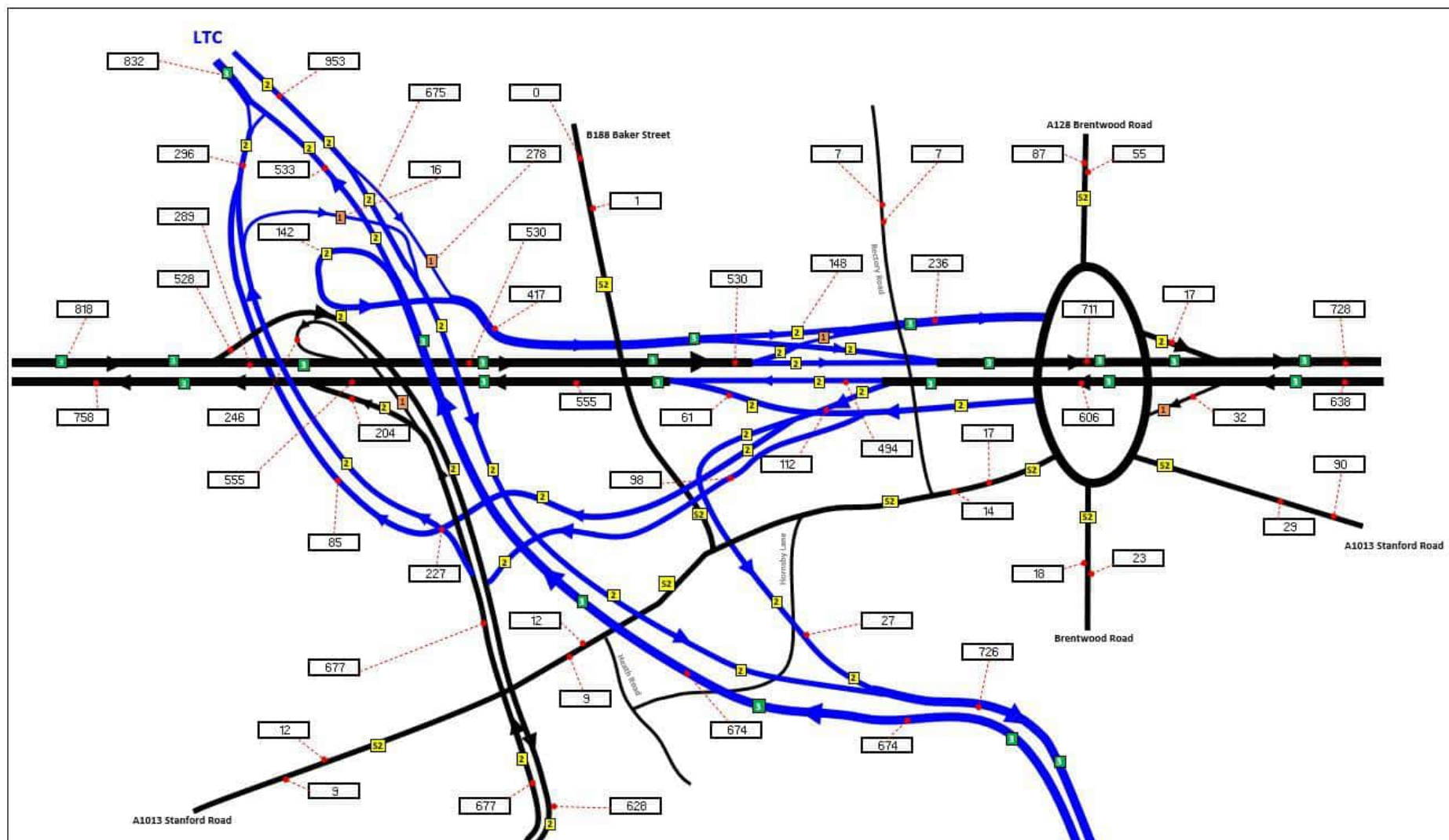


**Plate F.33 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 Low Growth PM Peak All Vehicles (PCUs)**

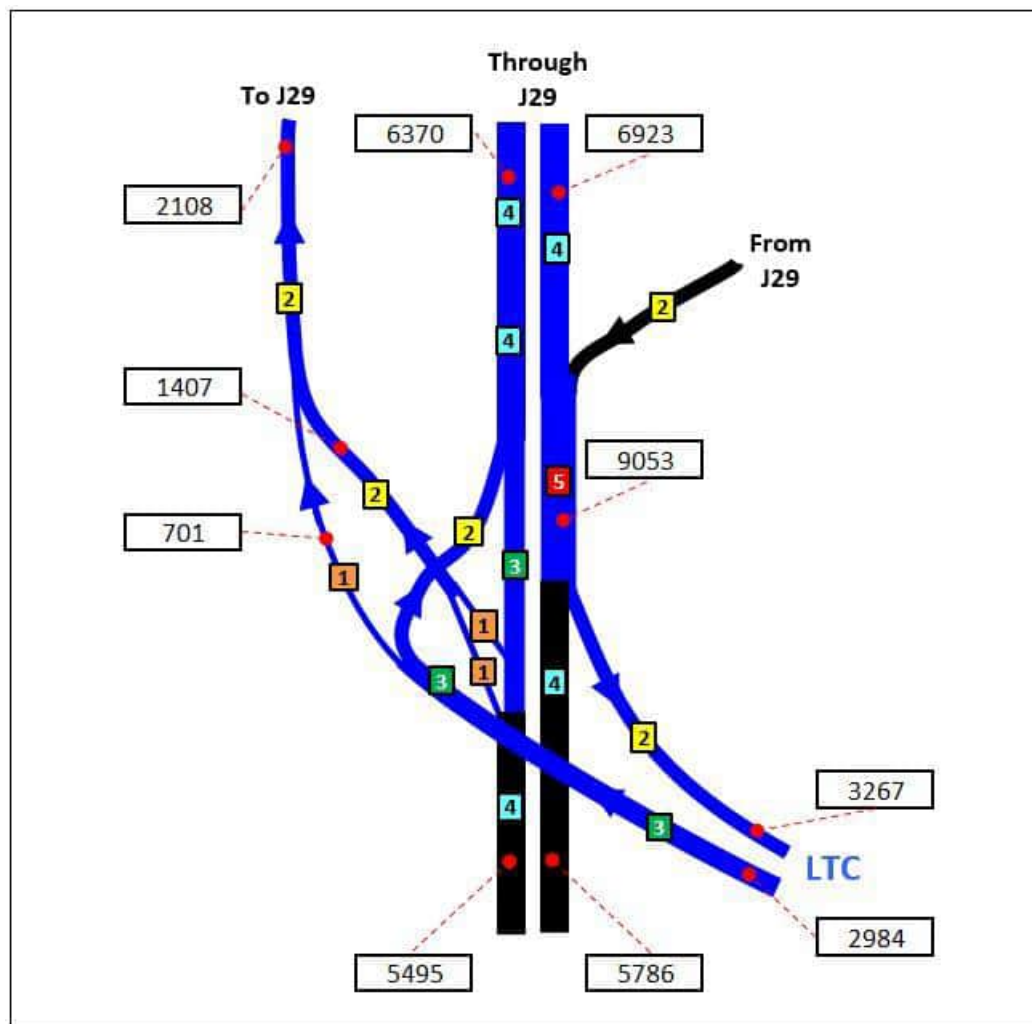




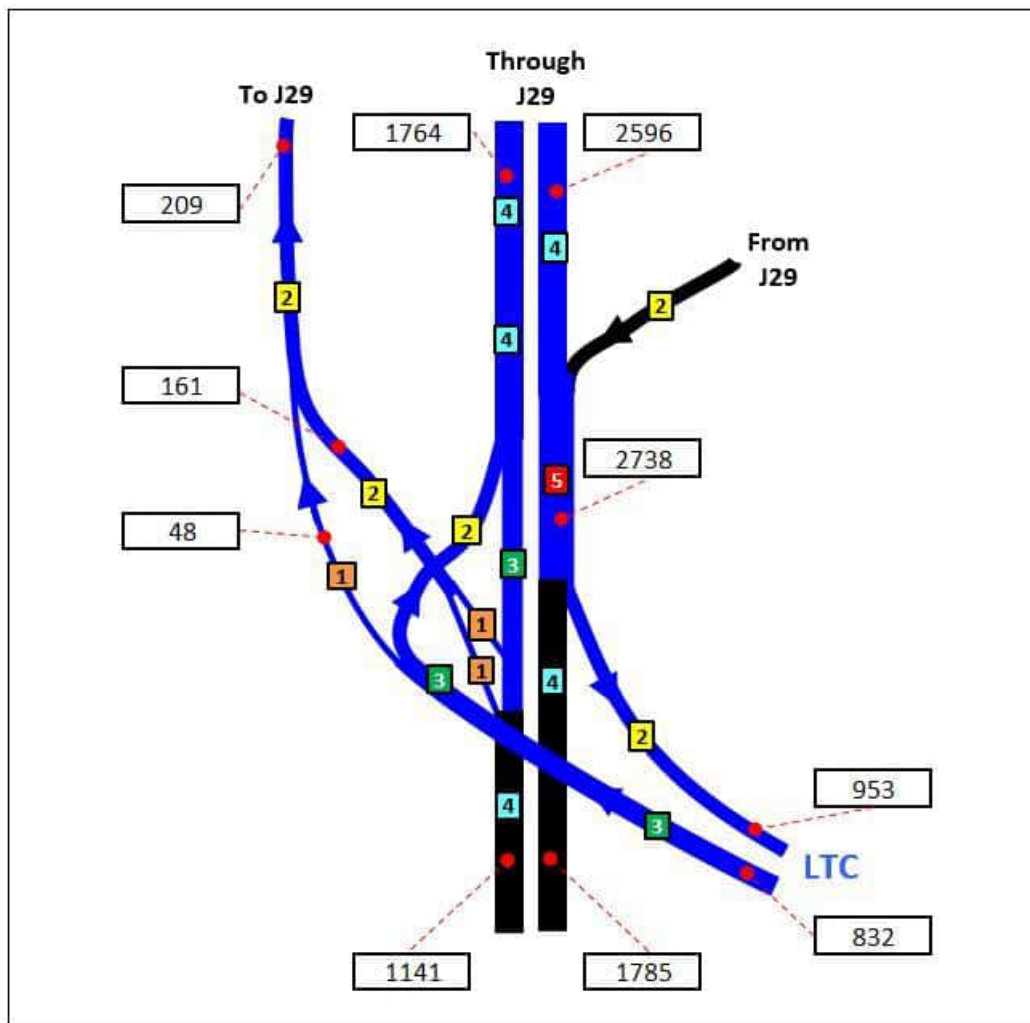
**Plate F.34 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 Low Growth PM Peak HGV (PCUs)**



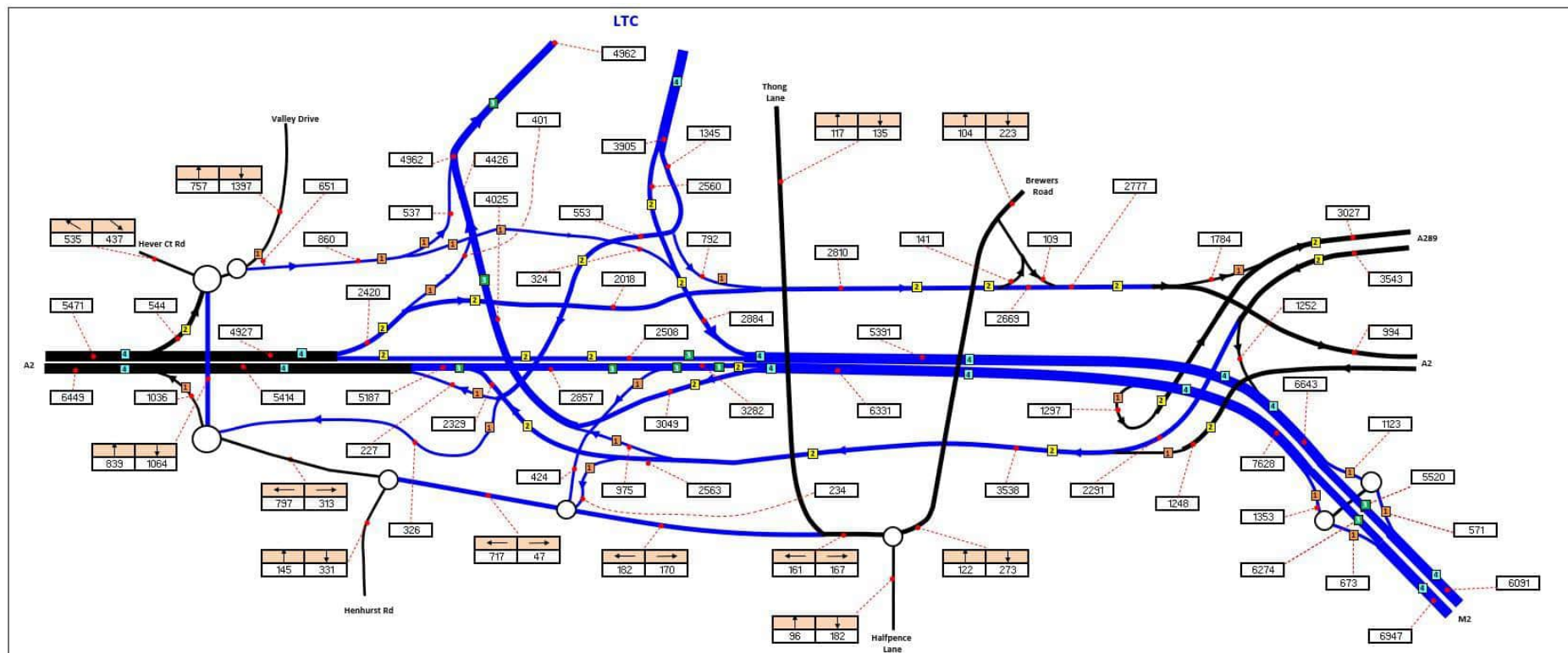
**Plate F.35 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 Low Growth PM Peak All Vehicles (PCUs)**



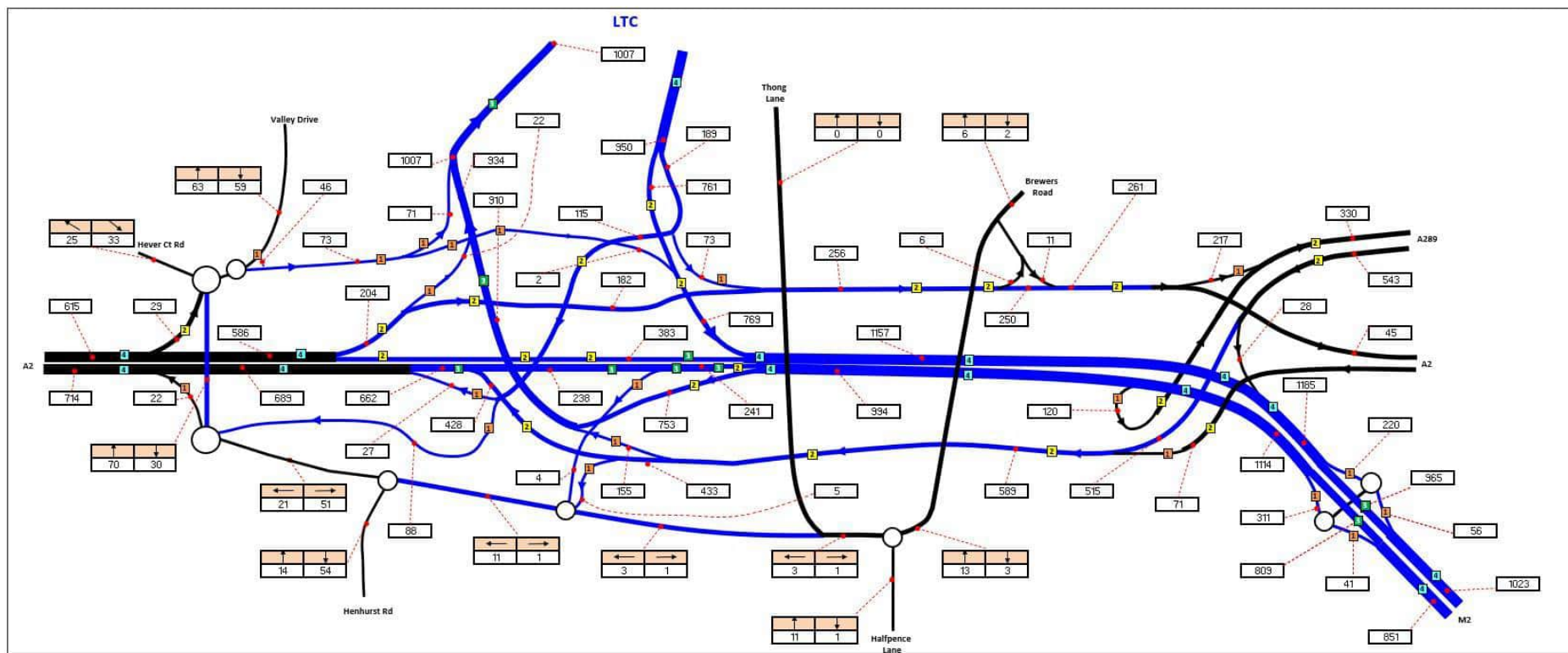
**Plate F.36 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 Low Growth PM Peak HGVS (PCUs)**



**Plate F.37 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak All Vehicles (PCUs)**



**Plate F.38 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak HGV (PCUs)**



**Plate F.39 LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak All Vehicles (PCUs)**

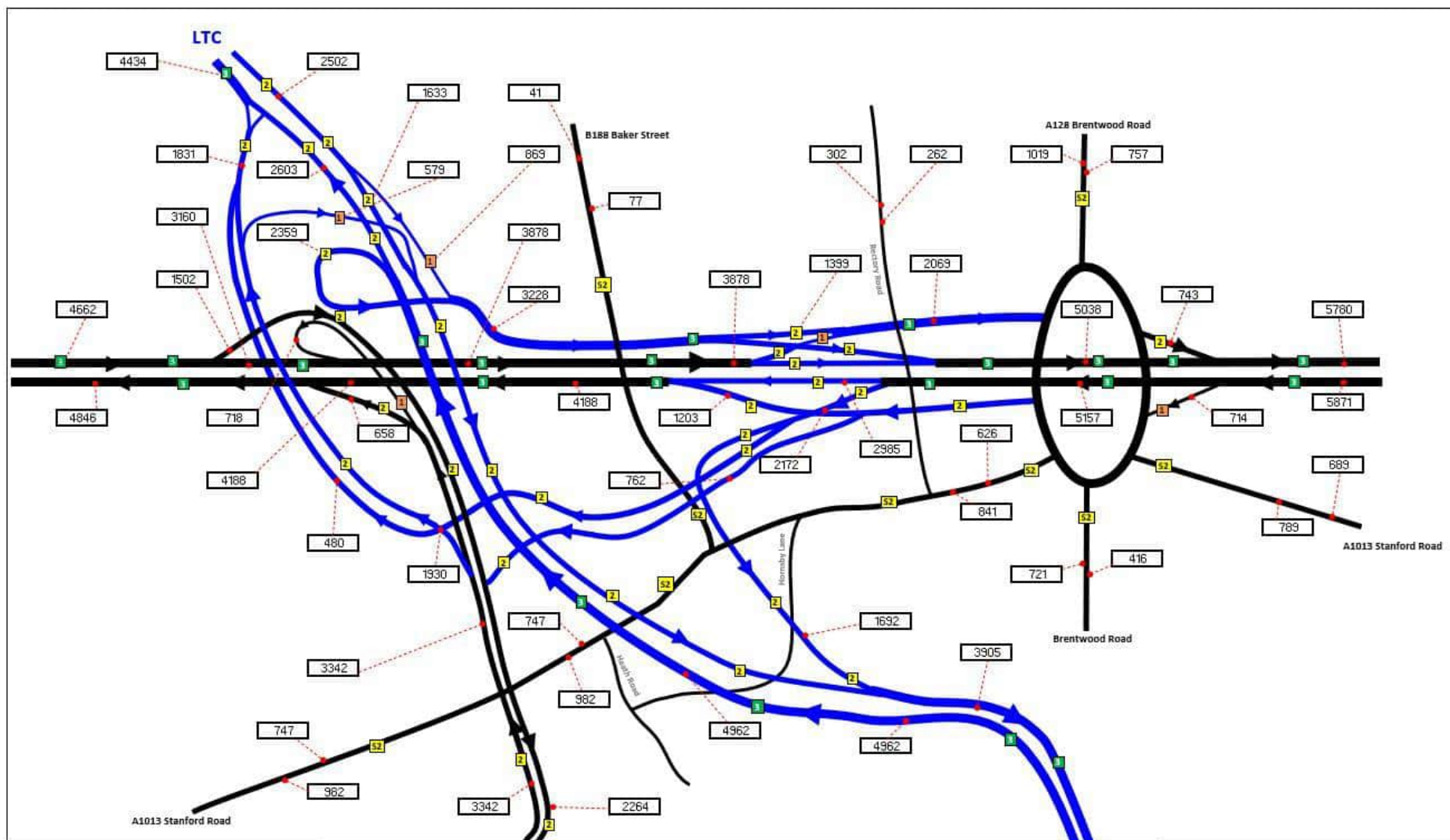
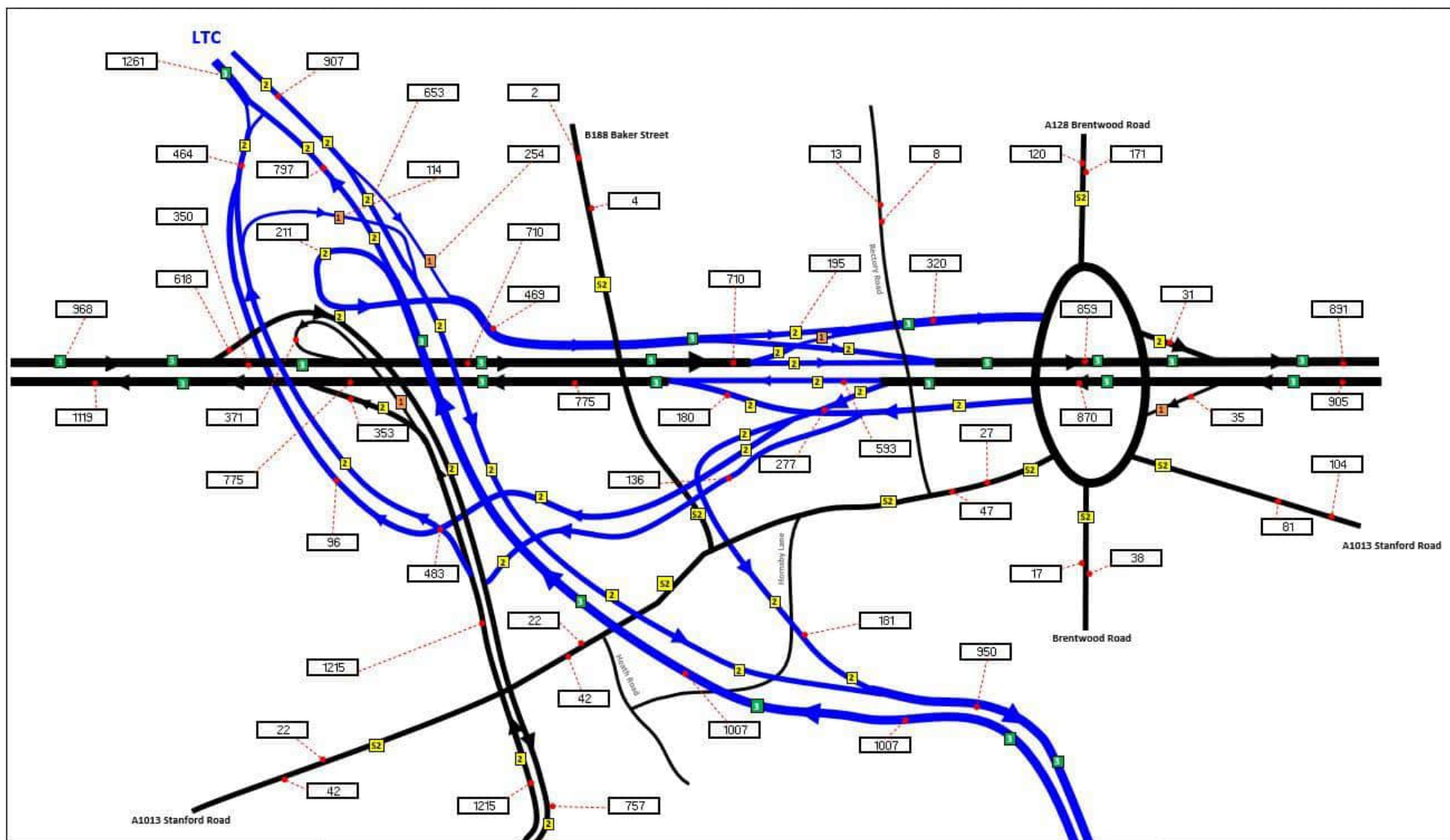
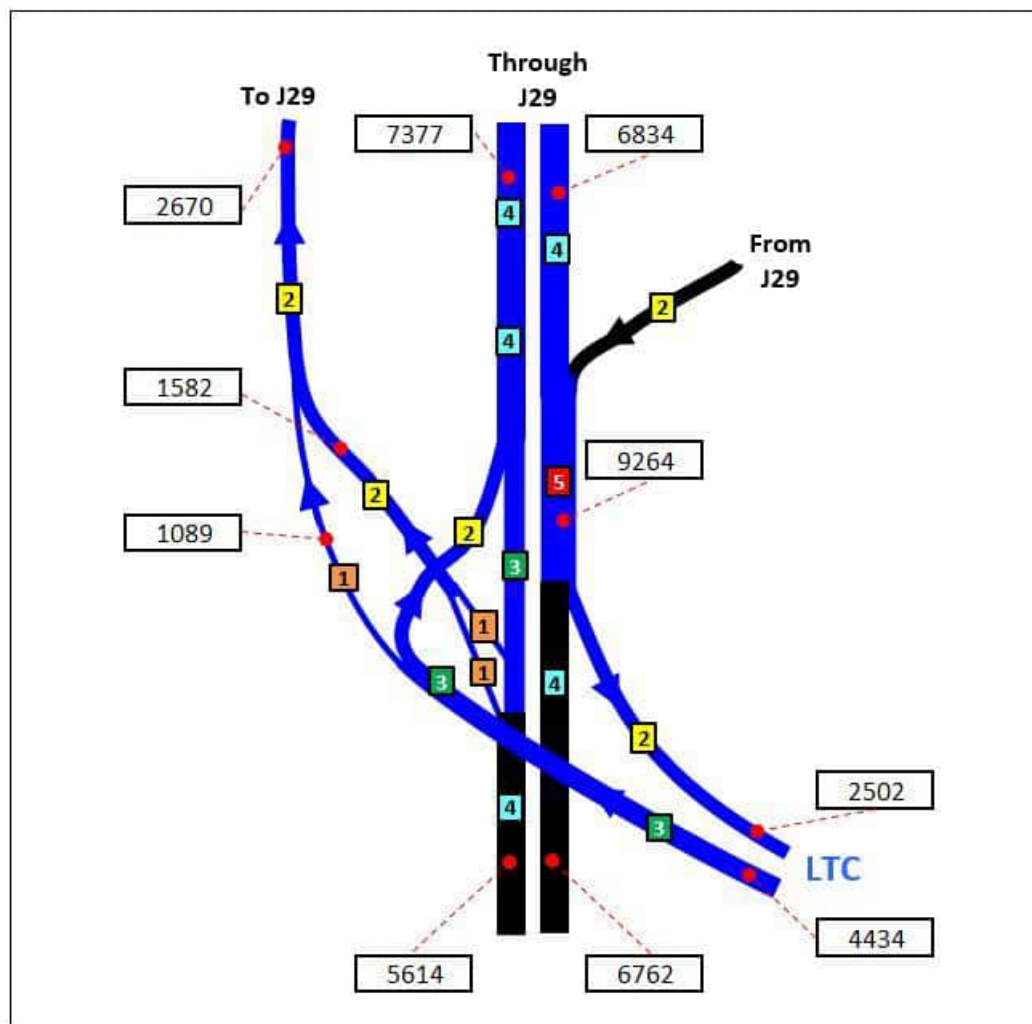


Plate F.40 LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak HGVS (PCUs)

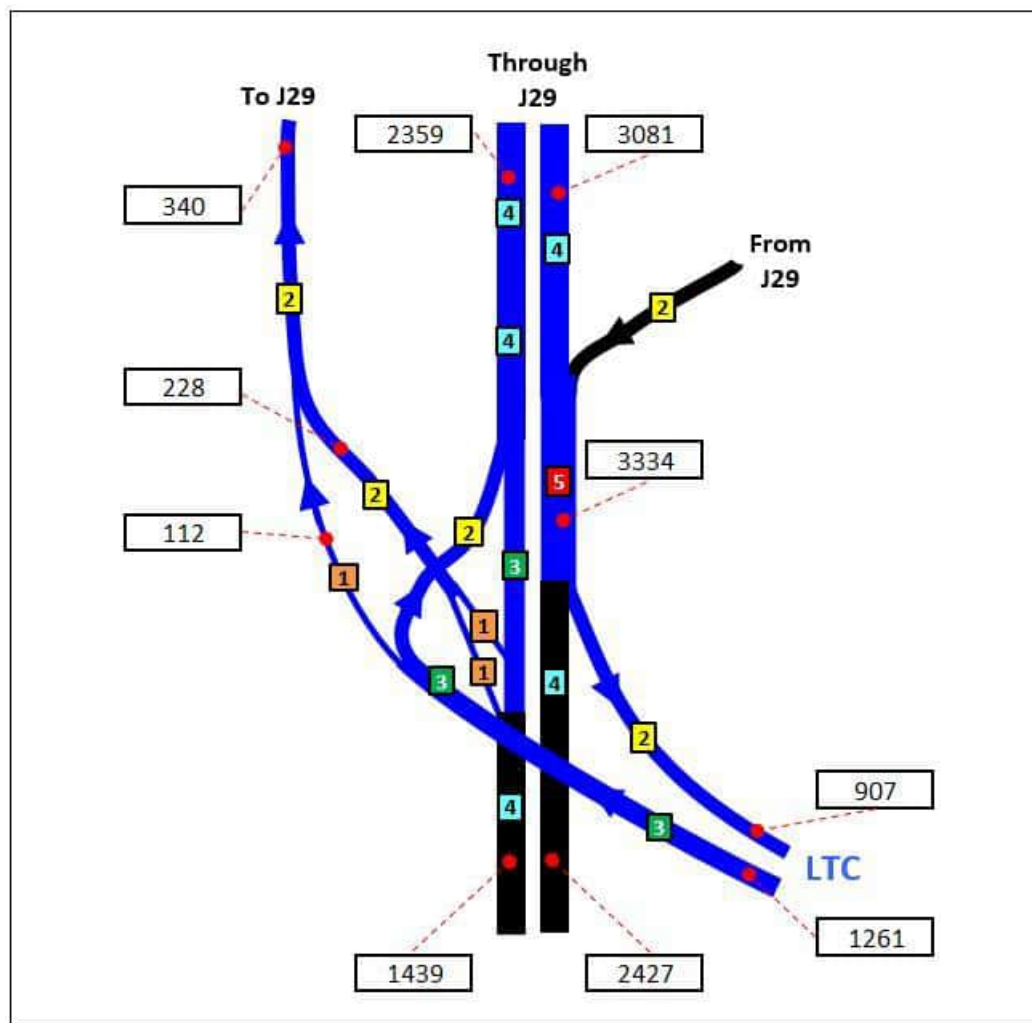


**Plate F.41 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak All Vehicles (PCUs)**

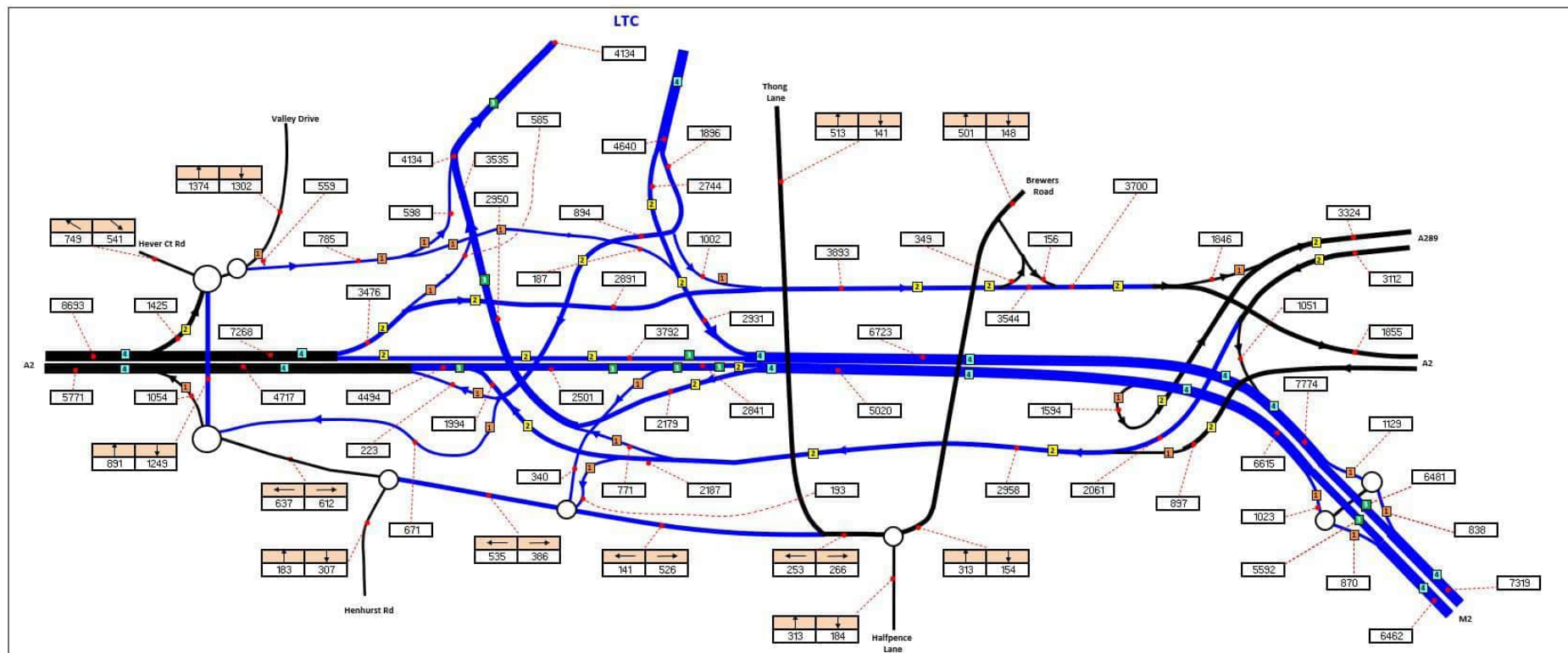




**Plate F.42 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth AM Peak HGVS (PCUs)**



**Plate F.43 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak All Vehicles (PCUs)**





**Plate F.45 LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak All Vehicles (PCUs)**

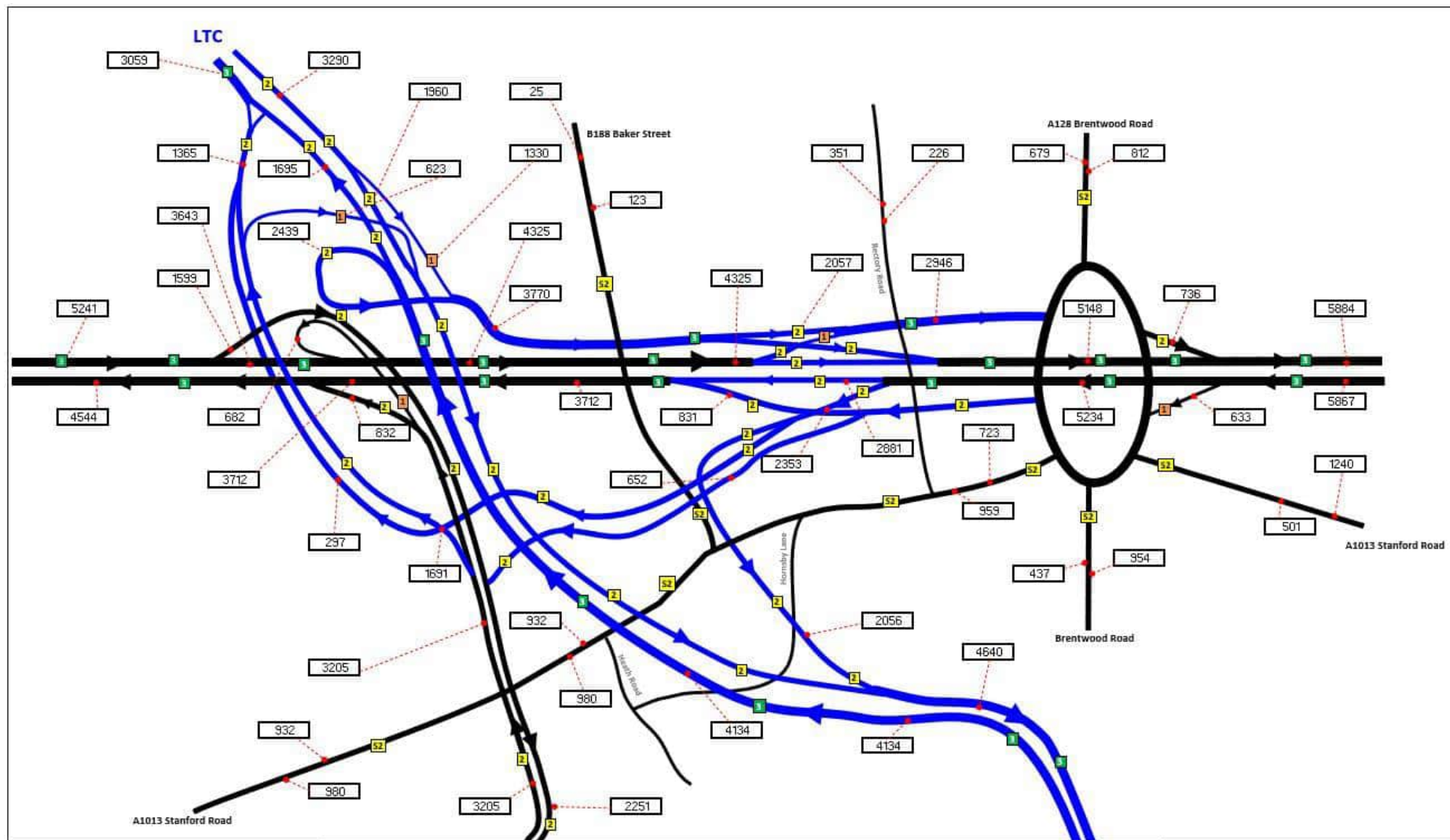
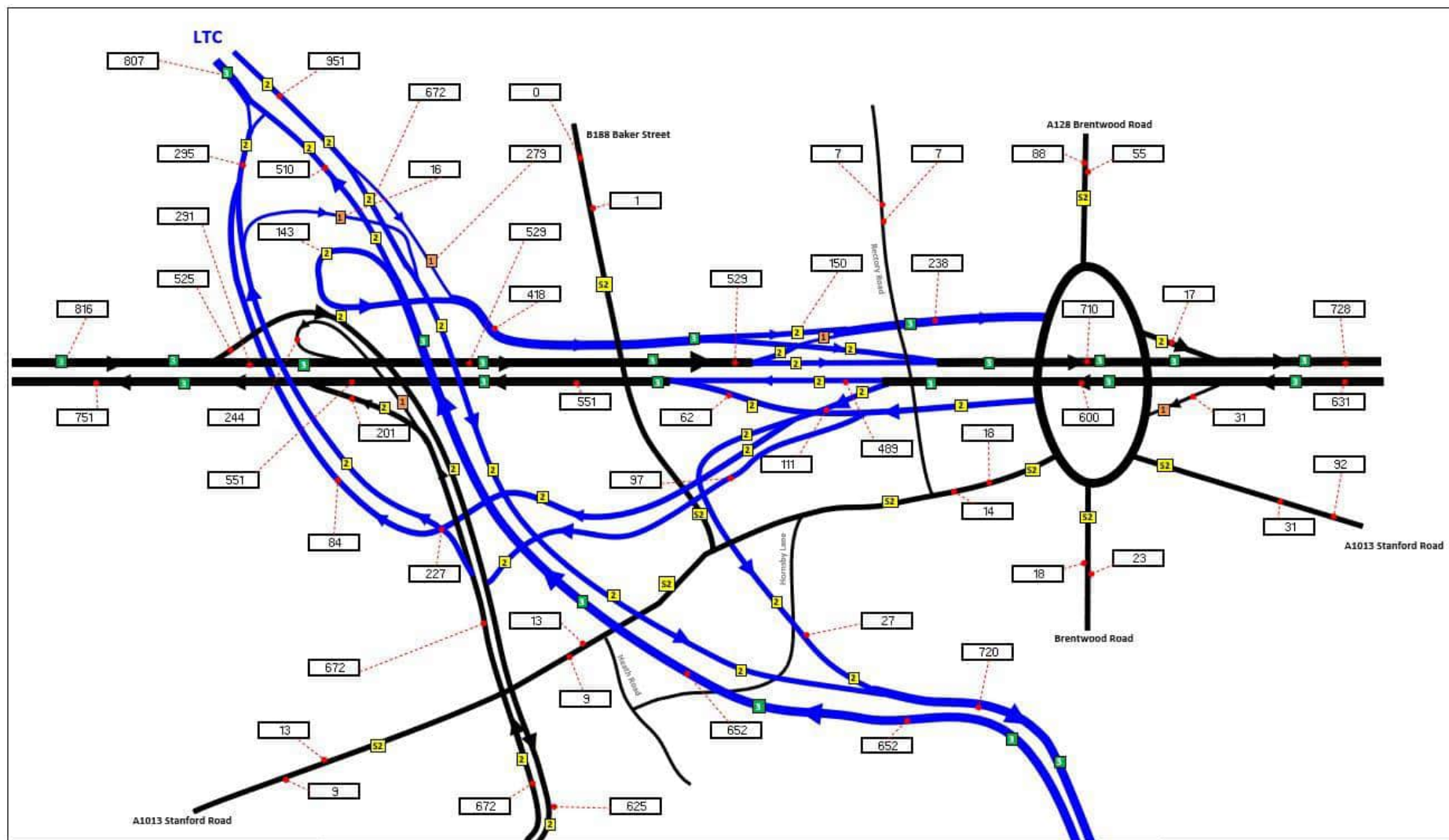
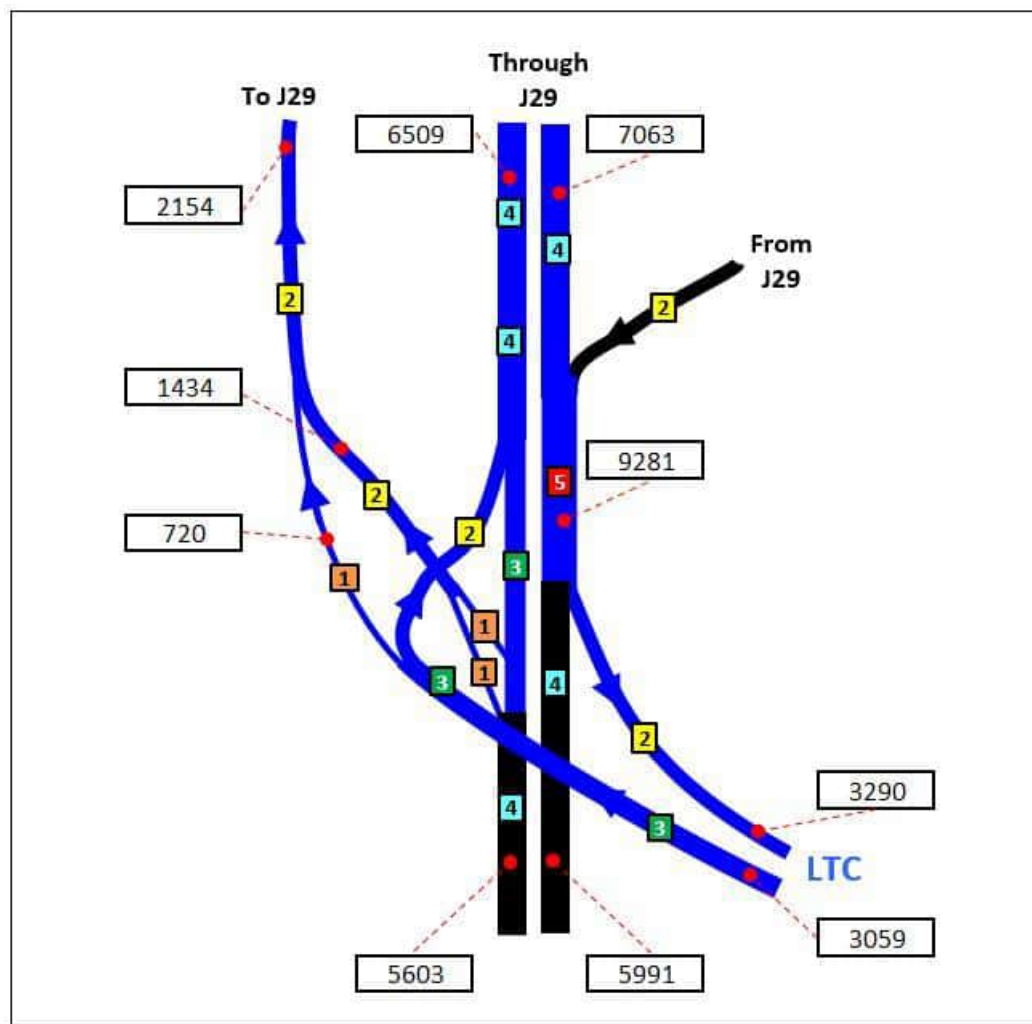


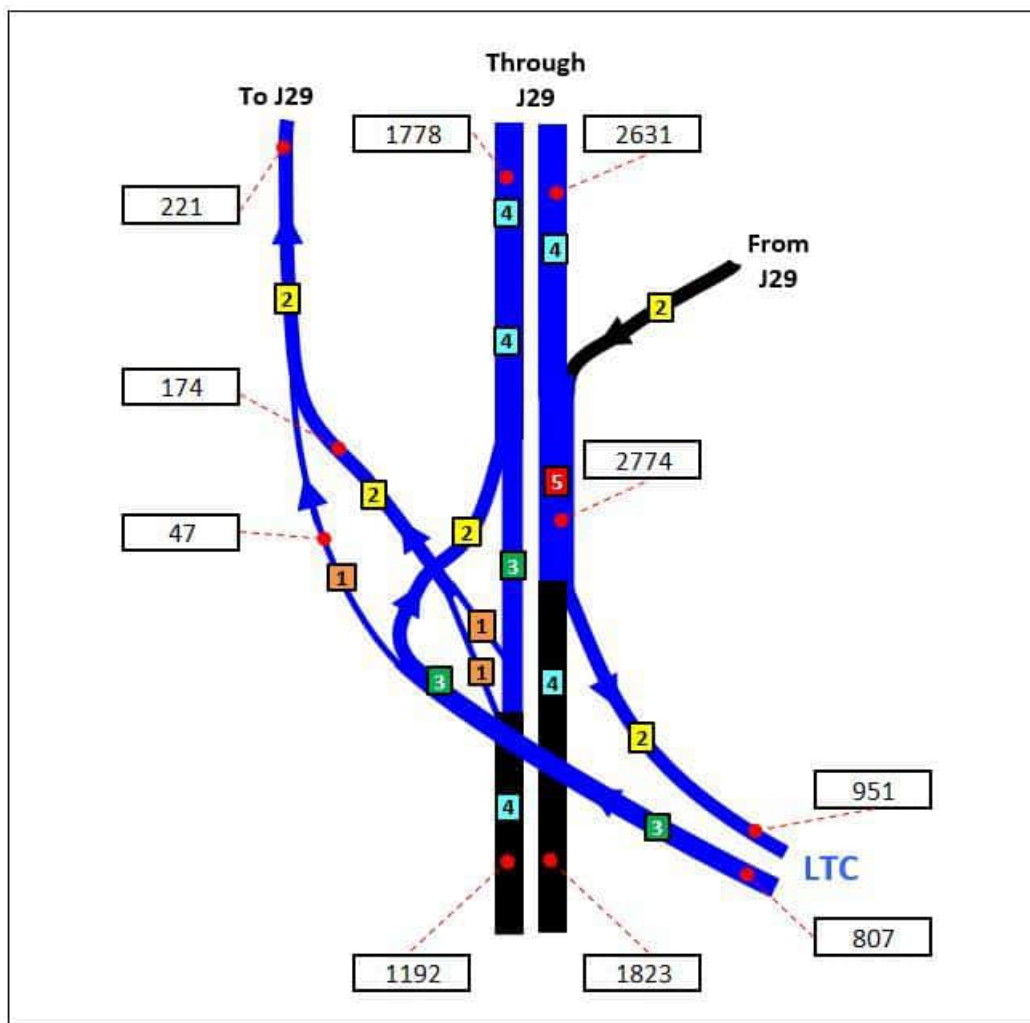
Plate F.46 LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak HGV (PCUs)



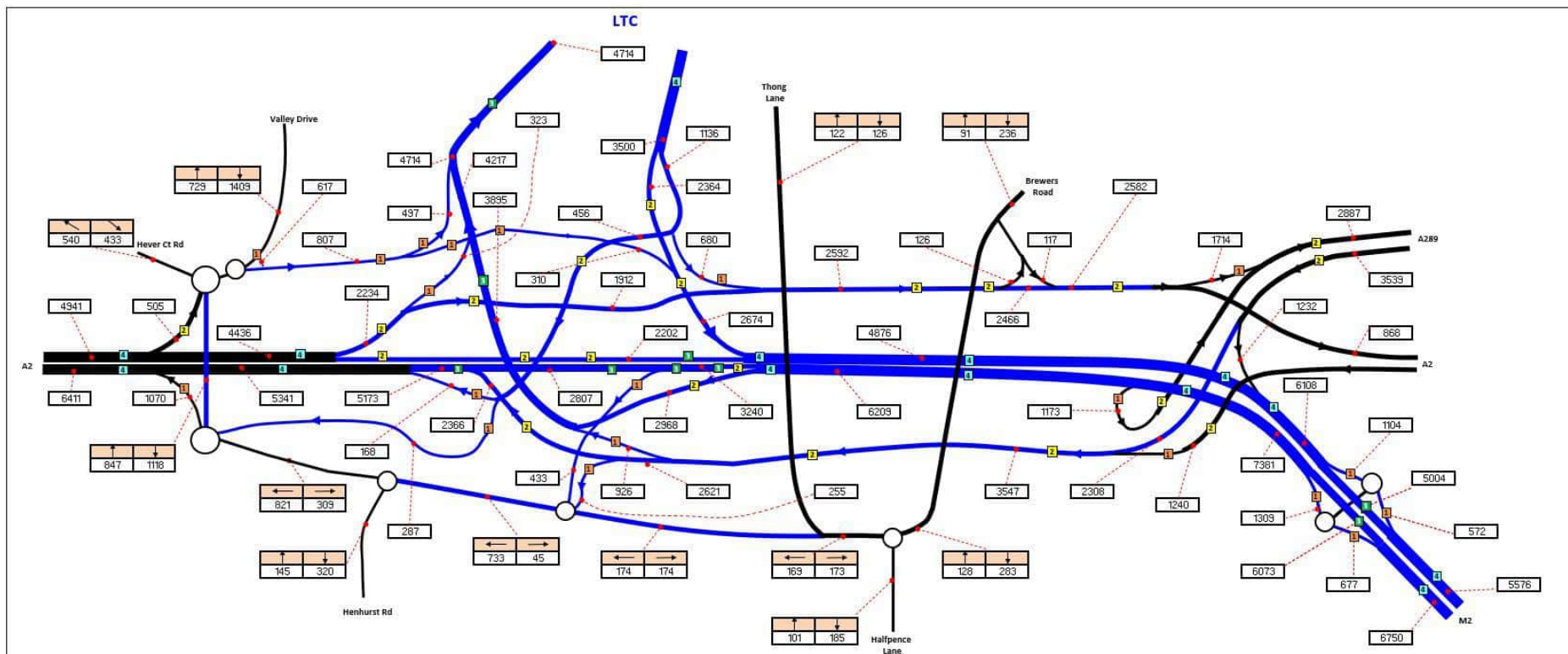
**Plate F.47 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak All Vehicles (PCUs)**



**Plate F.48 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 Low Growth PM Peak HGVS (PCUs)**

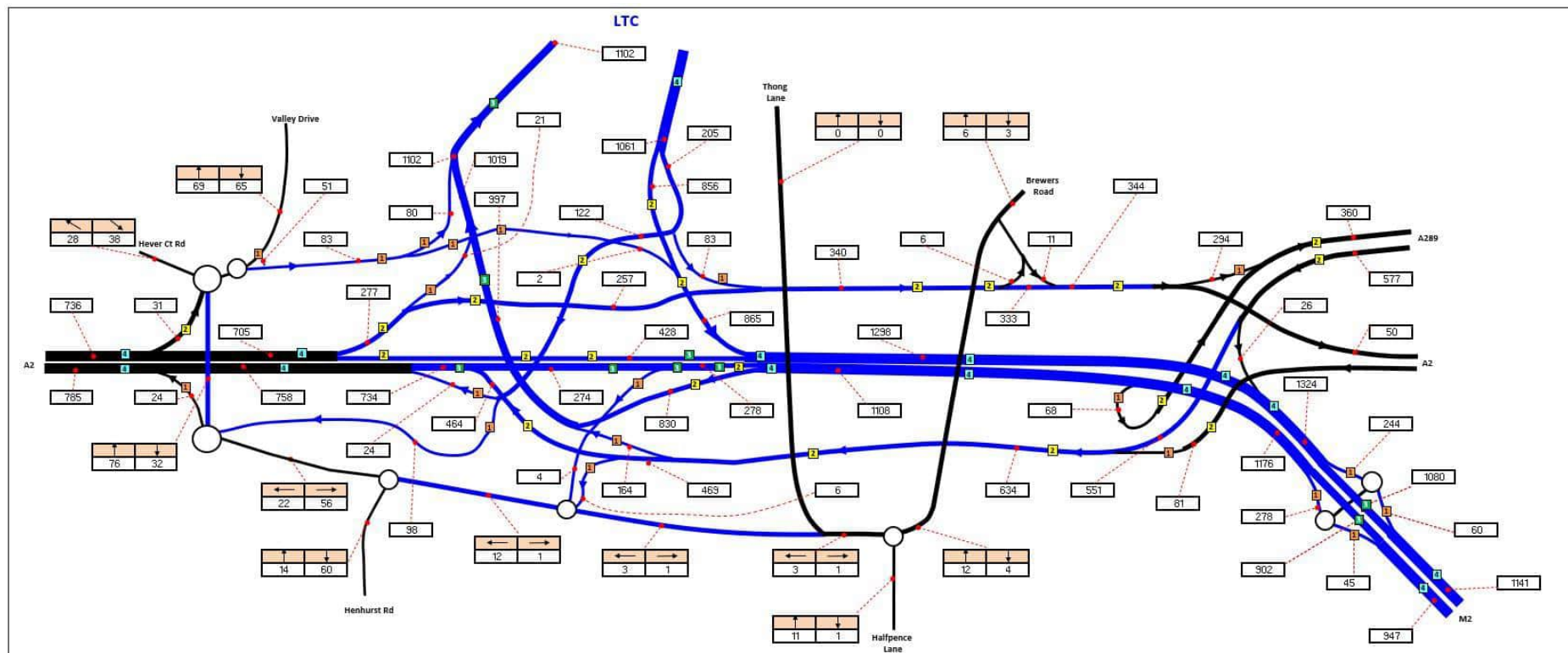


**Plate F.49 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 High Growth AM Peak All Vehicles (PCUs)**

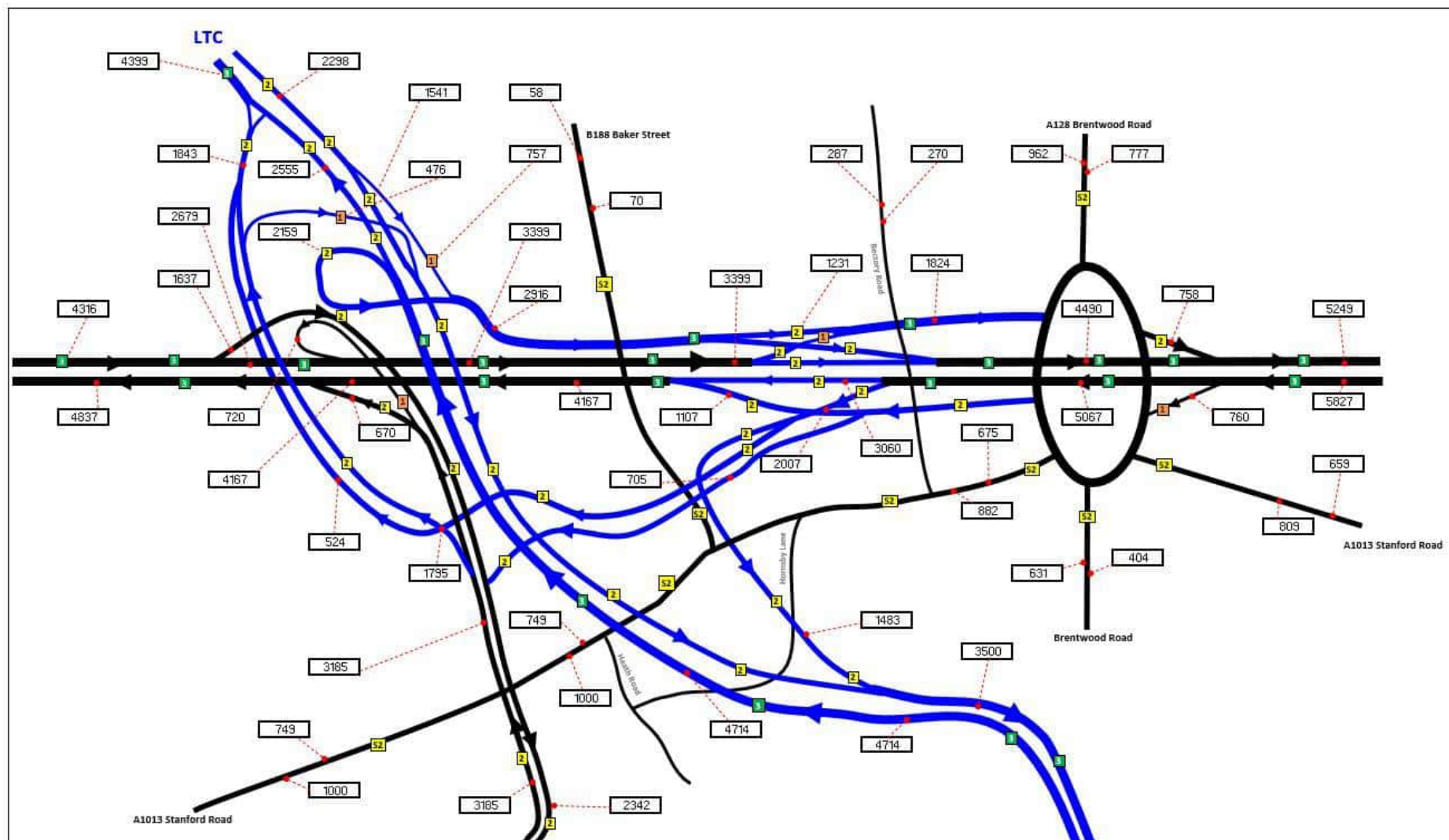




**Plate F.50 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 High Growth AM Peak HGV (PCUs)**

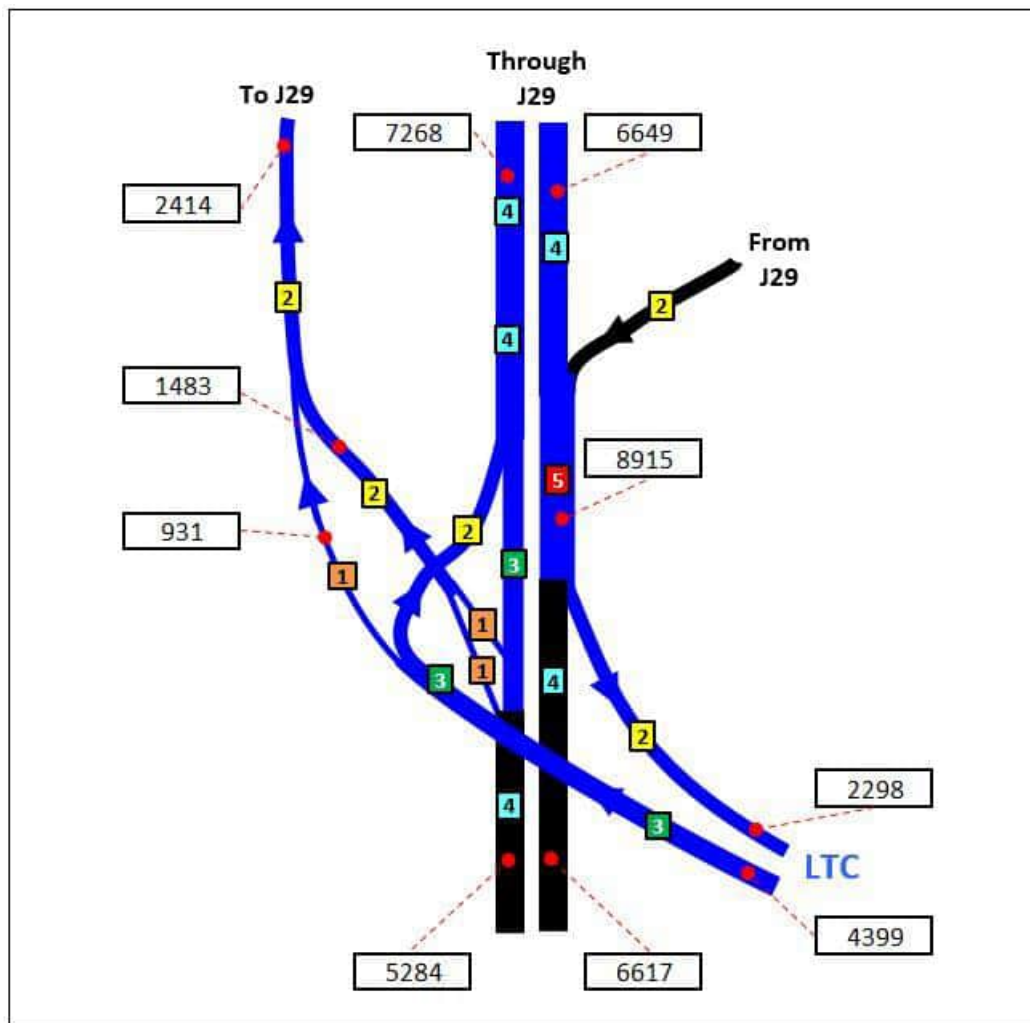


**Plate F.51 LTC Junction with A13 – LTAM Predicted Traffic Flows 2030 High Growth AM Peak All Vehicles (PCUs)**

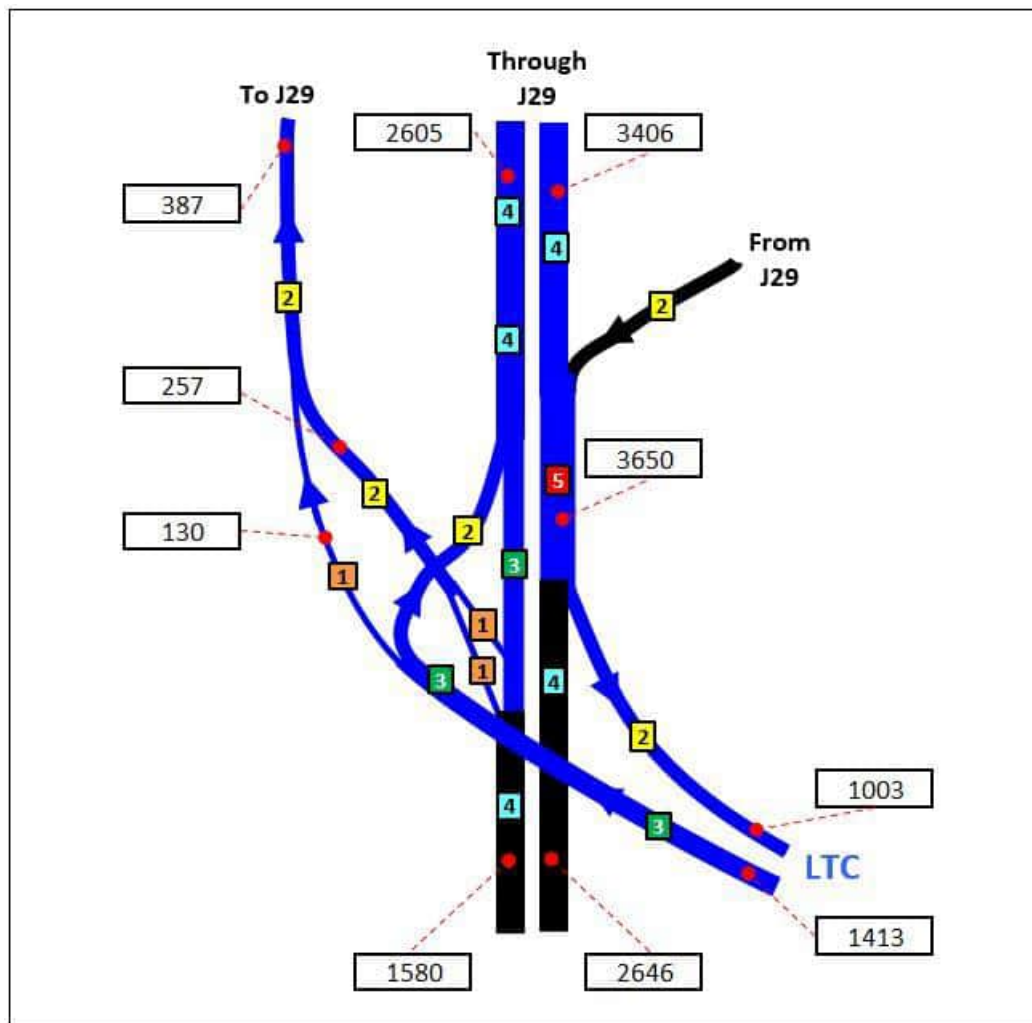




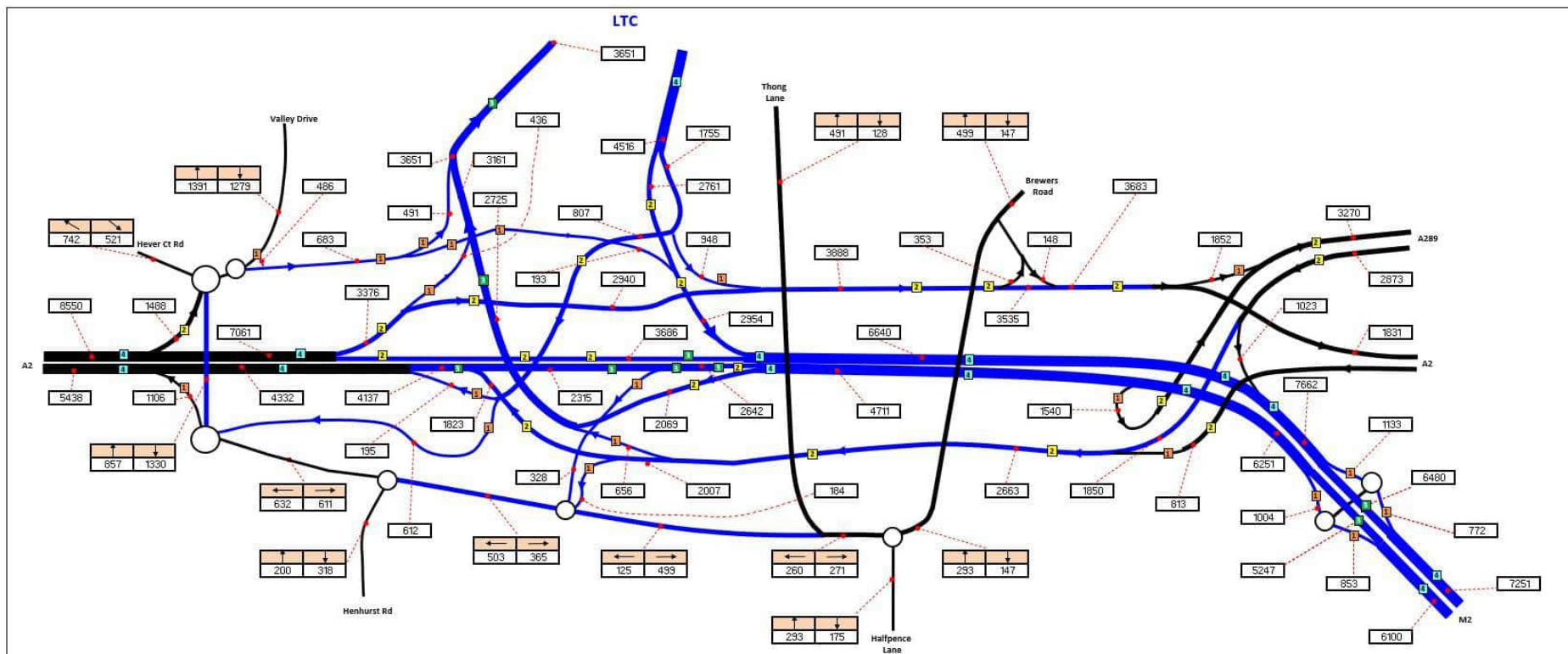
**Plate F.53 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 High Growth AM Peak All Vehicles (PCUs)**



**Plate F.54 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 High Growth AM Peak HGV (PCUs)**



**Plate F.55 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 High Growth PM Peak All Vehicles (PCUs)**



**Plate F.56 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2030 High Growth PM Peak HGV (PCUs)**

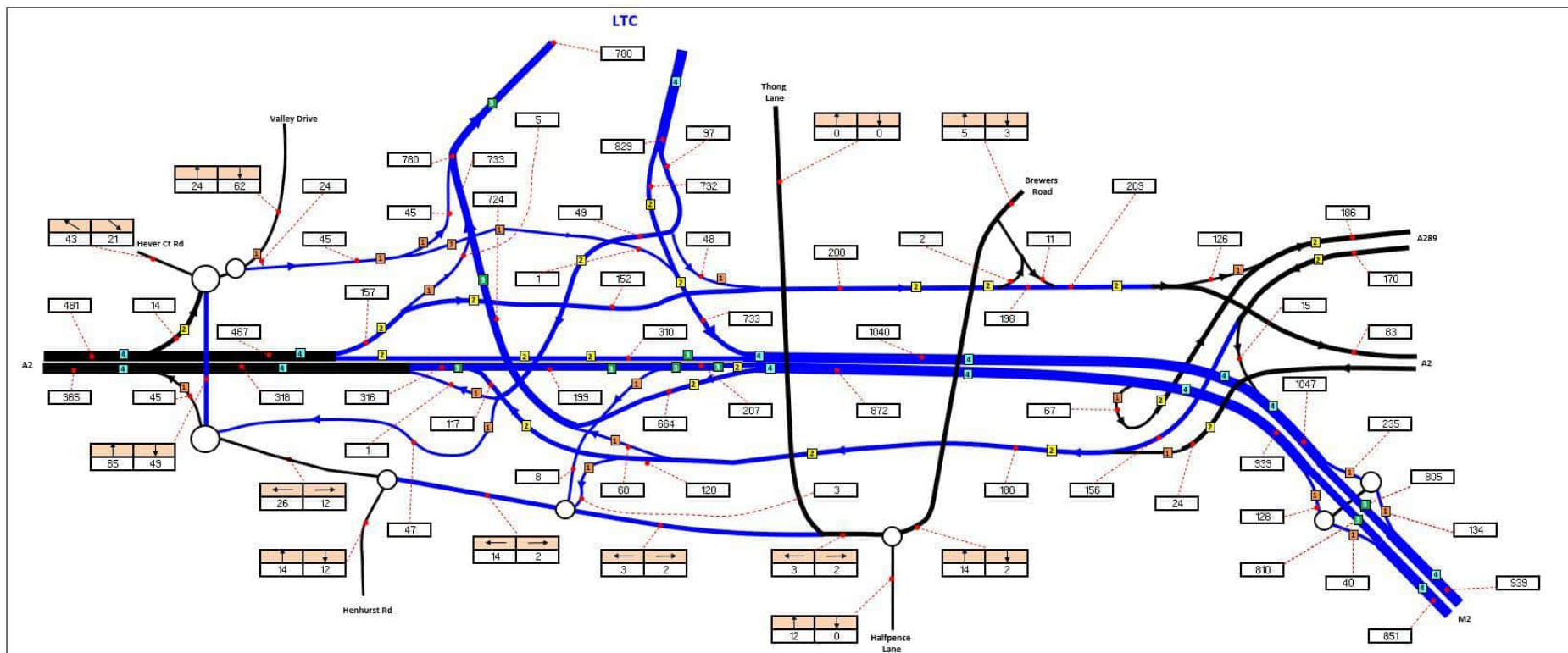
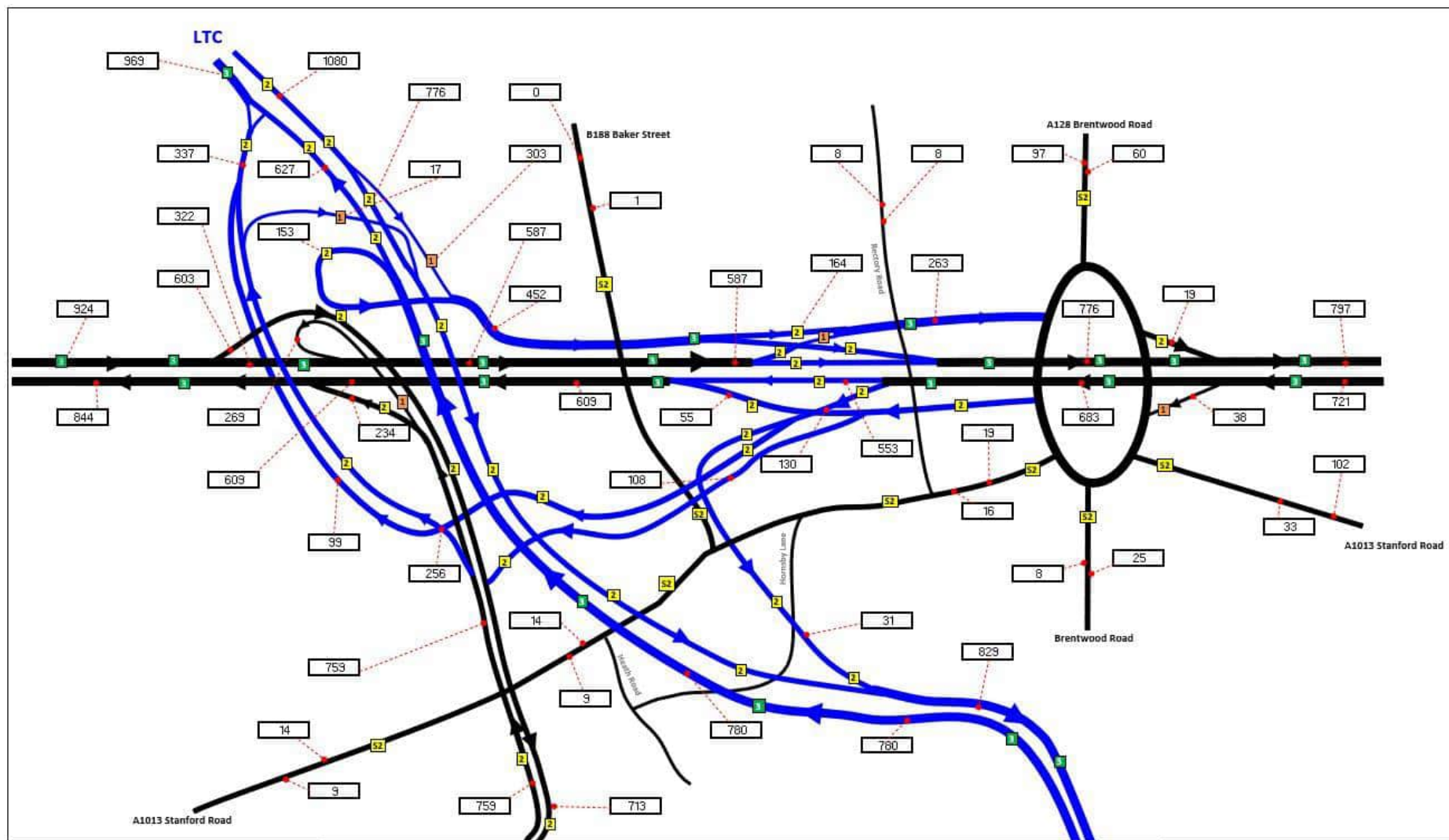


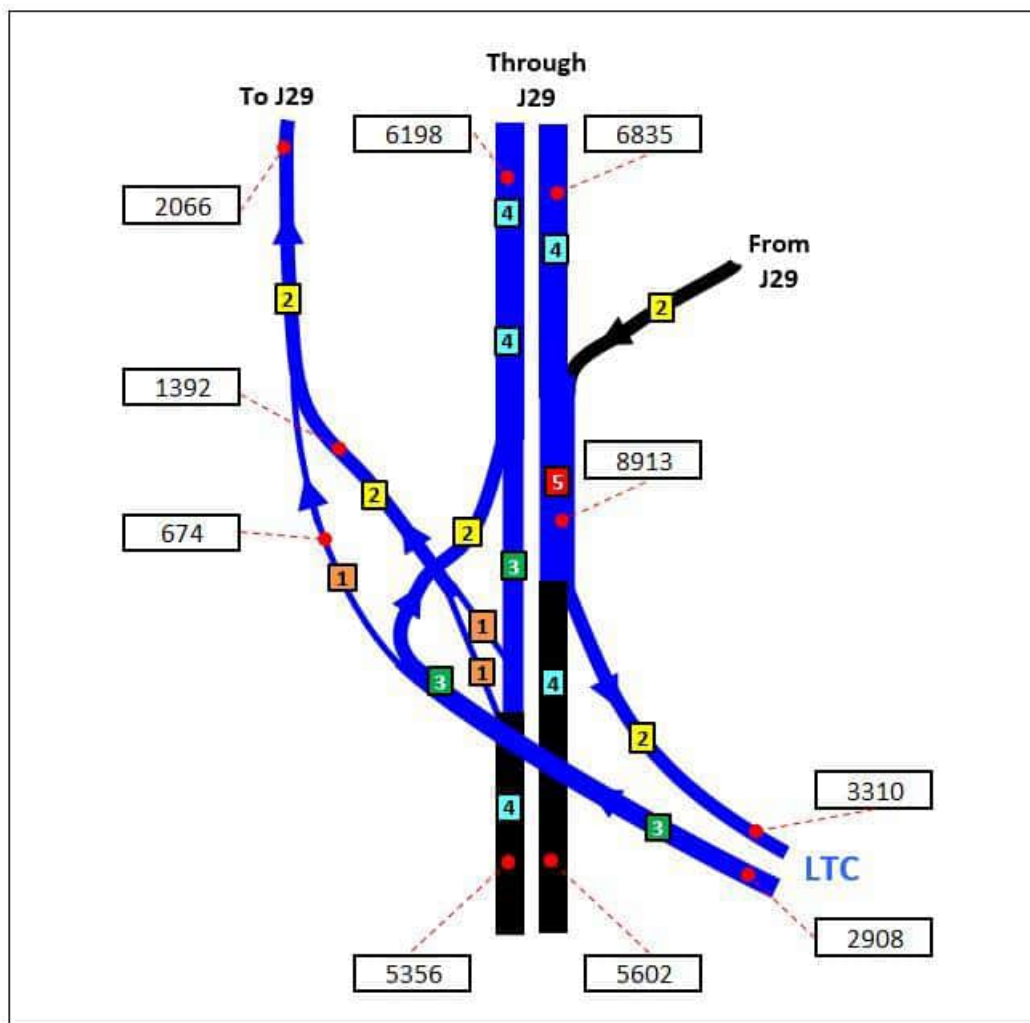




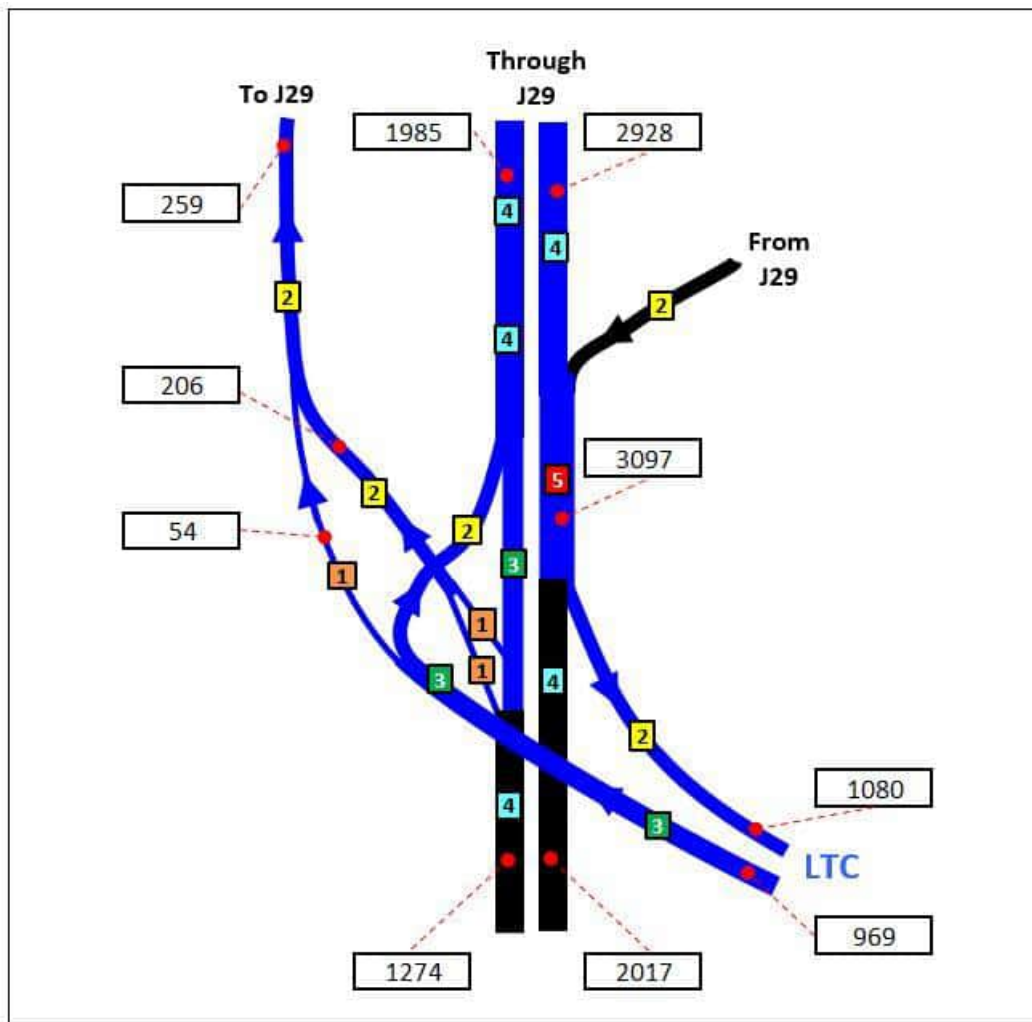
Plate F.58 LTC Junction with A13 – LTAM Predicted Traffic Flows 2030 High Growth PM Peak HGVS (PCUs)



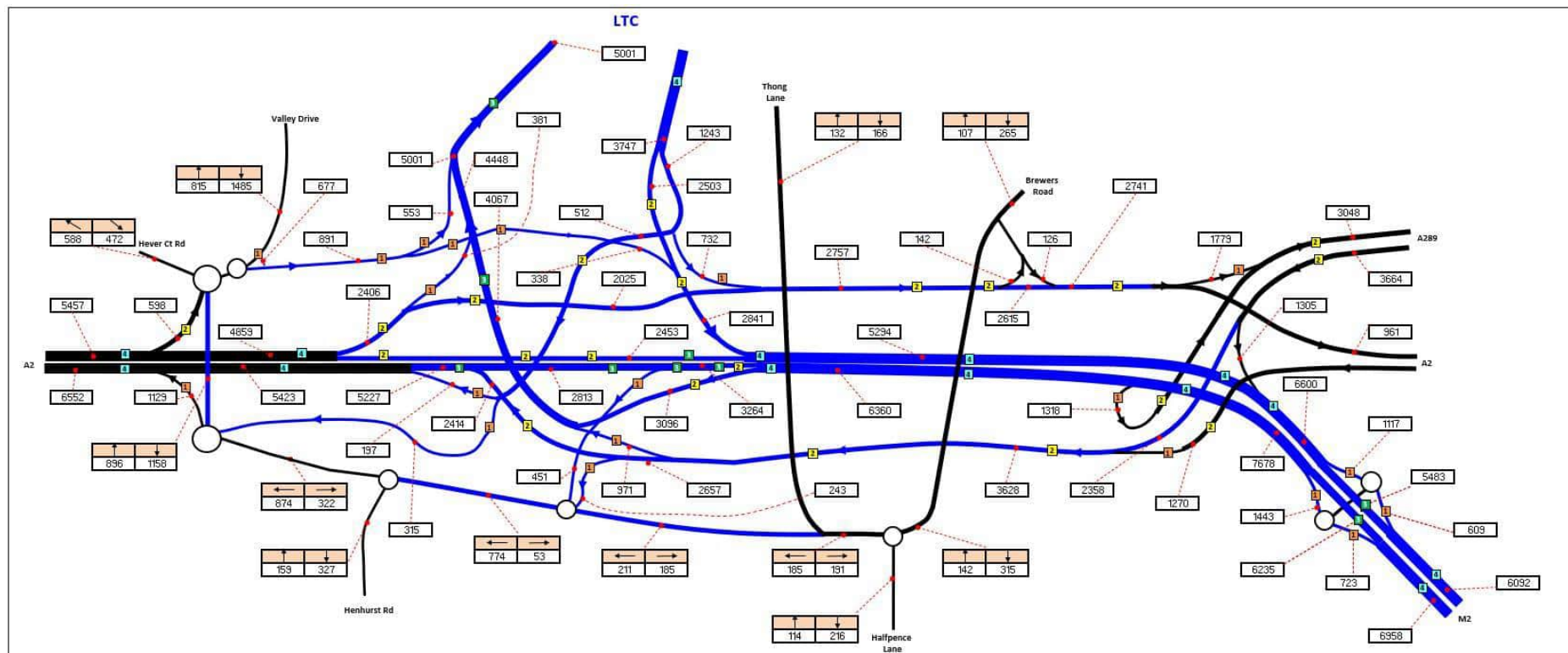
**Plate F.59 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 High Growth PM Peak All Vehicles (PCUs)**



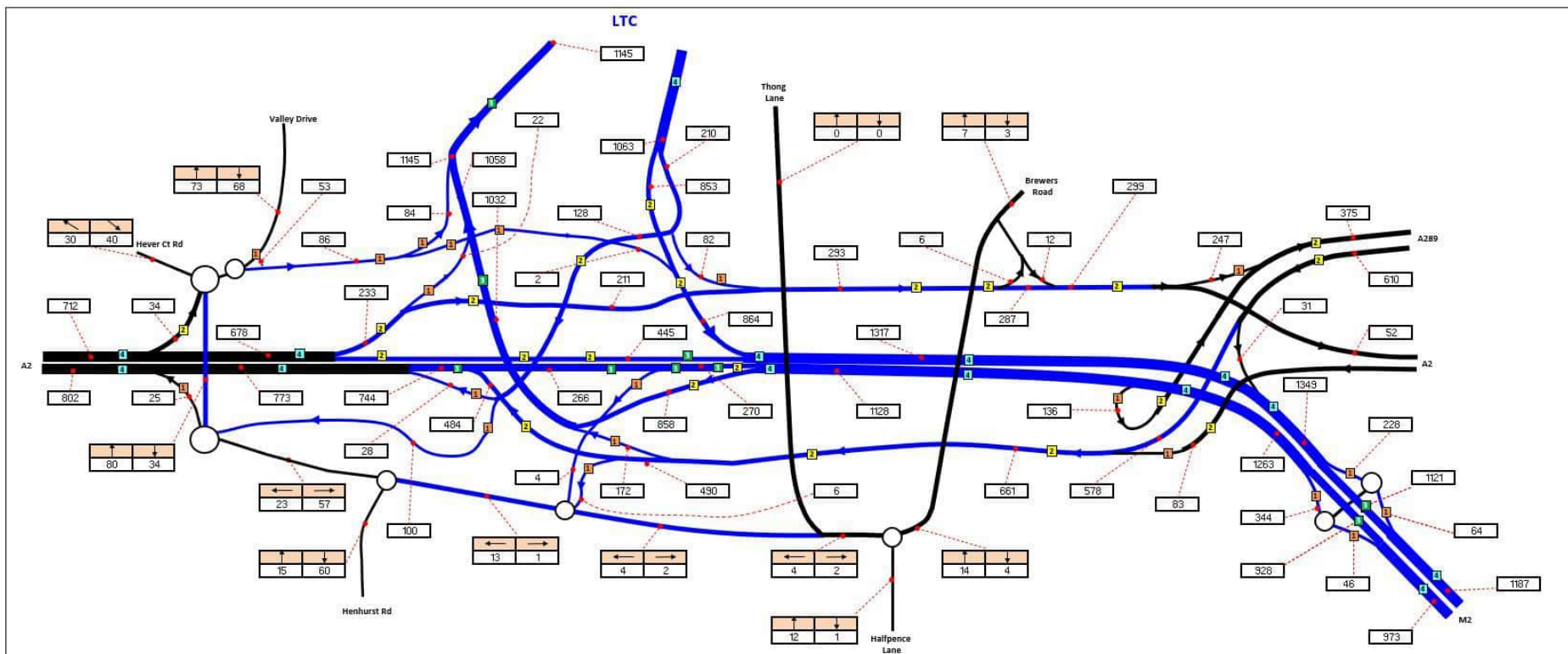
**Plate F.60 LTC Junction with M25 – LTAM Predicted Traffic Flows 2030 High Growth PM Peak HGV (PCUs)**



**Plate F.61 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2037 High Growth AM Peak All Vehicles (PCUs)**



**Plate F.62 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2037 High Growth AM Peak HGV (PCUs)**



**Plate F.63 LTC Junction with A13 – LTAM Predicted Traffic Flows 2037 High Growth AM Peak All Vehicles (PCUs)**

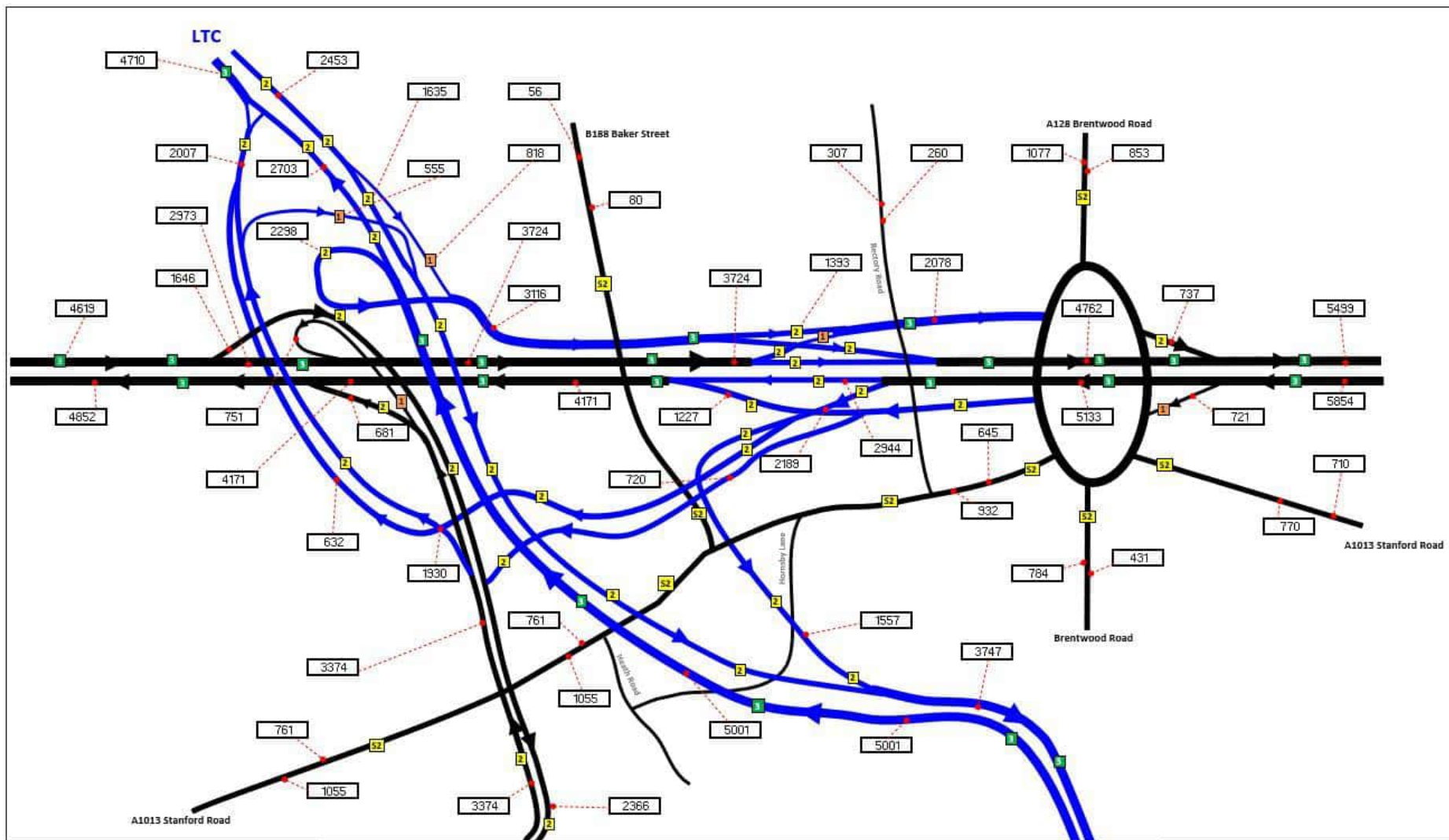
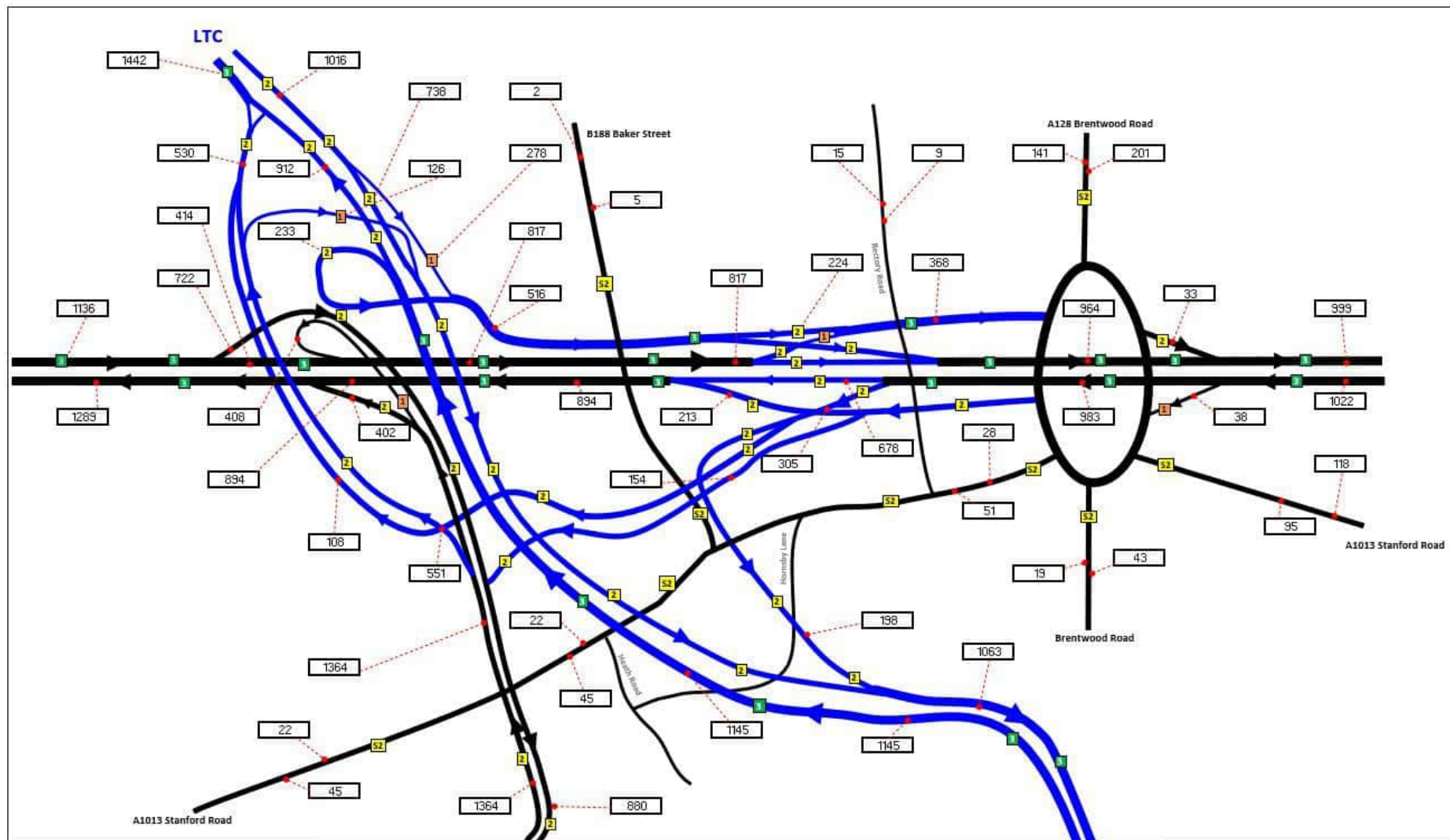
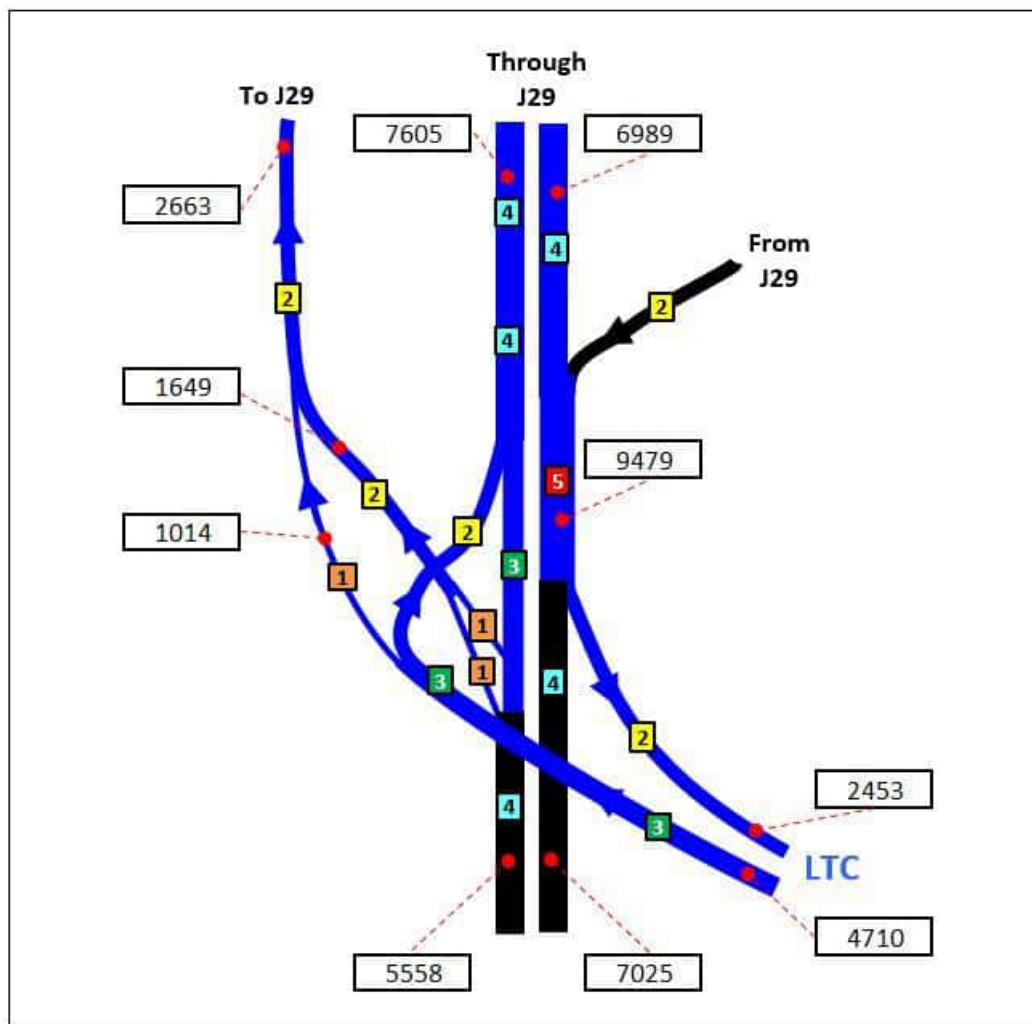


Plate F.64 LTC Junction with A13 – LTAM Predicted Traffic Flows 2037 High Growth AM Peak HGVS (PCUs)

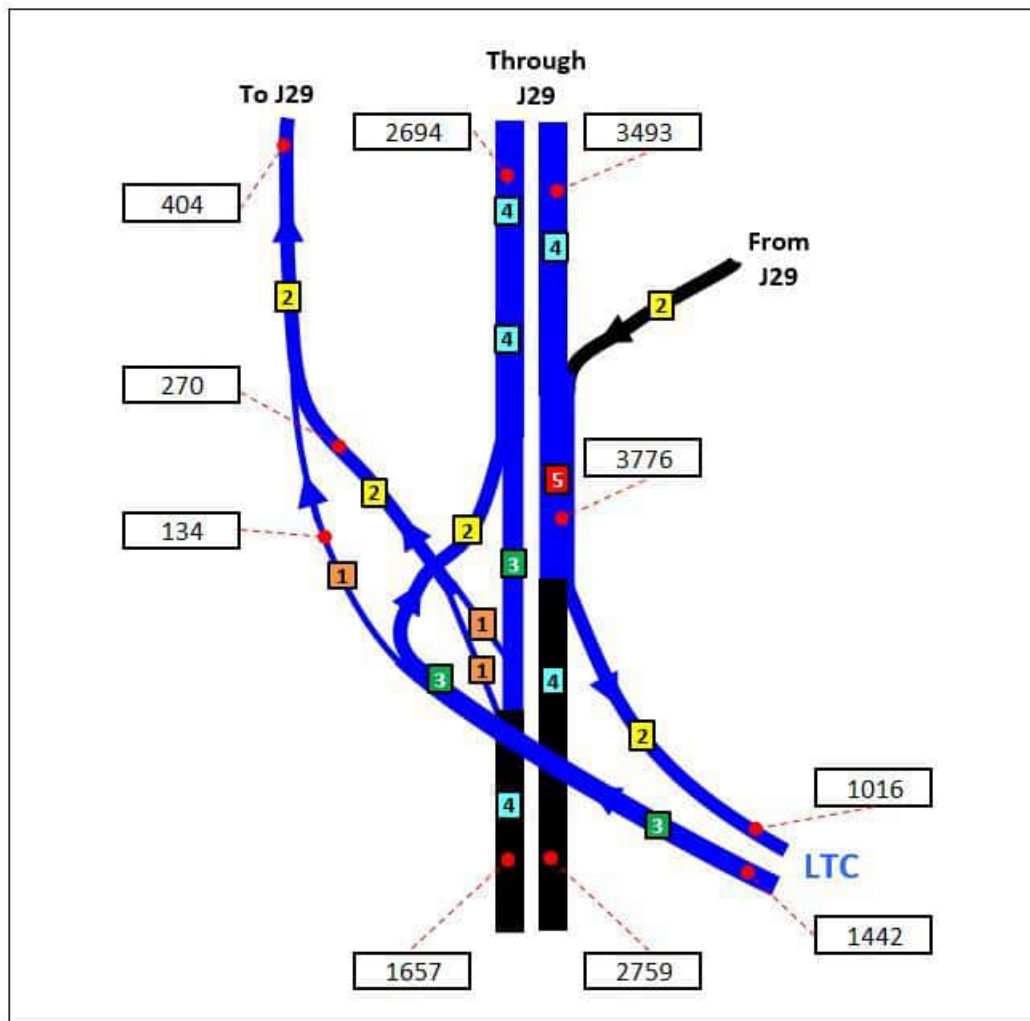


**Plate F.65 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 High Growth AM Peak All Vehicles (PCUs)**

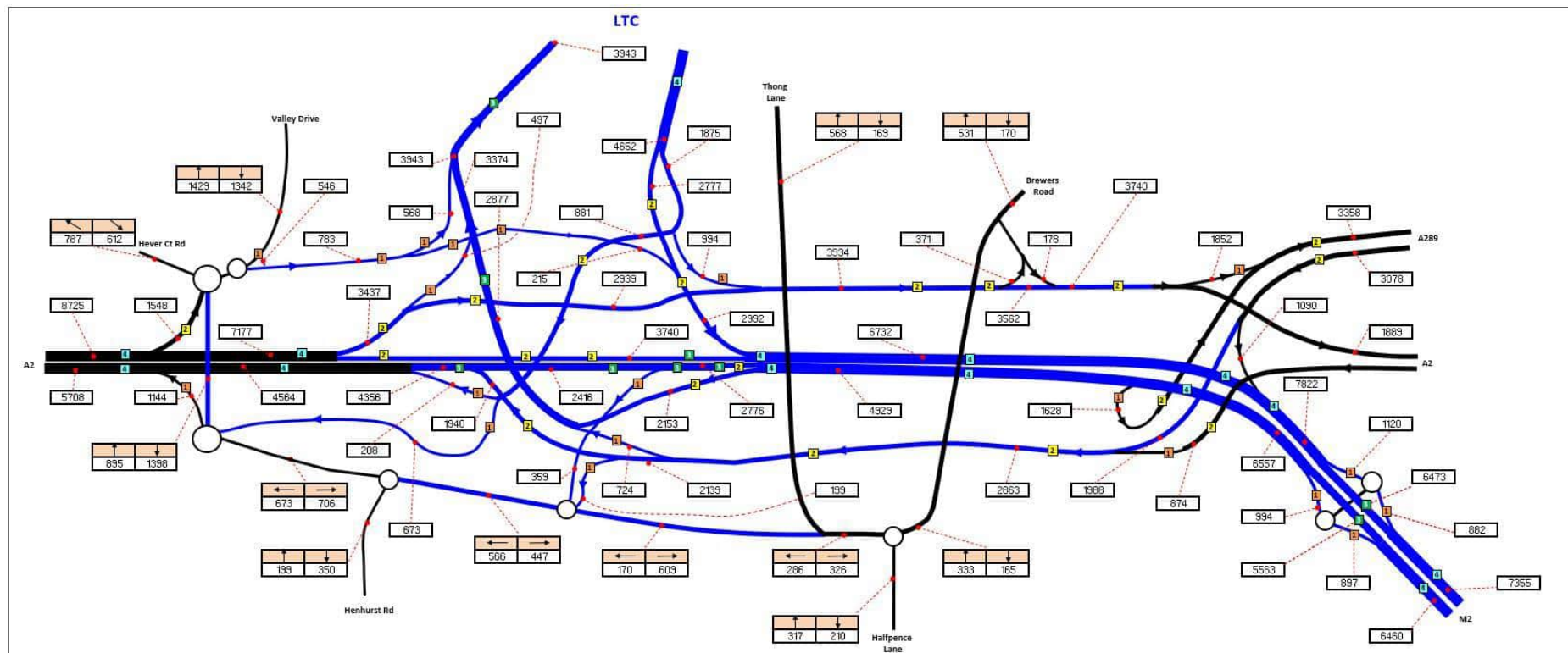




**Plate F.66 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 High Growth AM Peak HGV (PCUs)**



**Plate F.67 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2037 High Growth PM Peak All Vehicles (PCUs)**



**Plate F.68 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2037 High Growth PM Peak HGV (PCUs)**

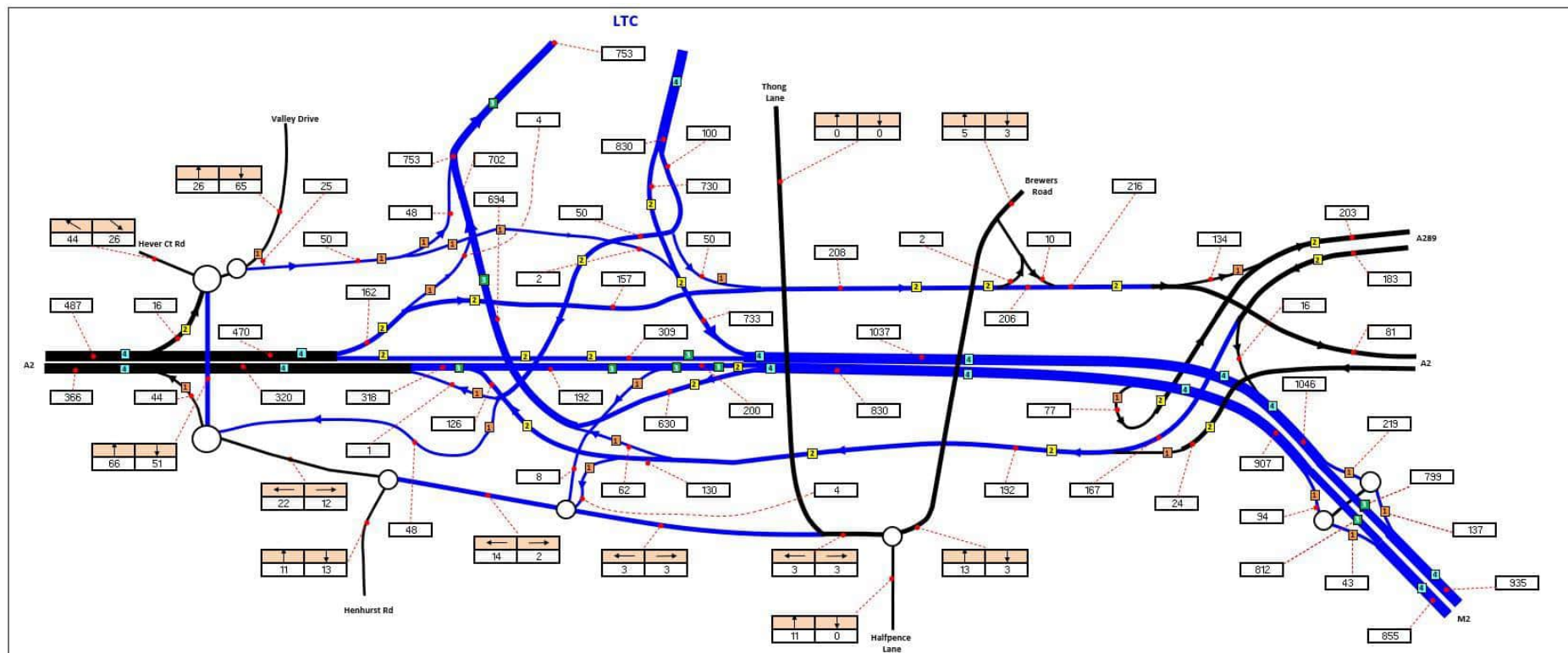


Plate F.69 LTC Junction with A13 – LTAM Predicted Traffic Flows 2037 High Growth PM Peak All Vehicles (PCUs)

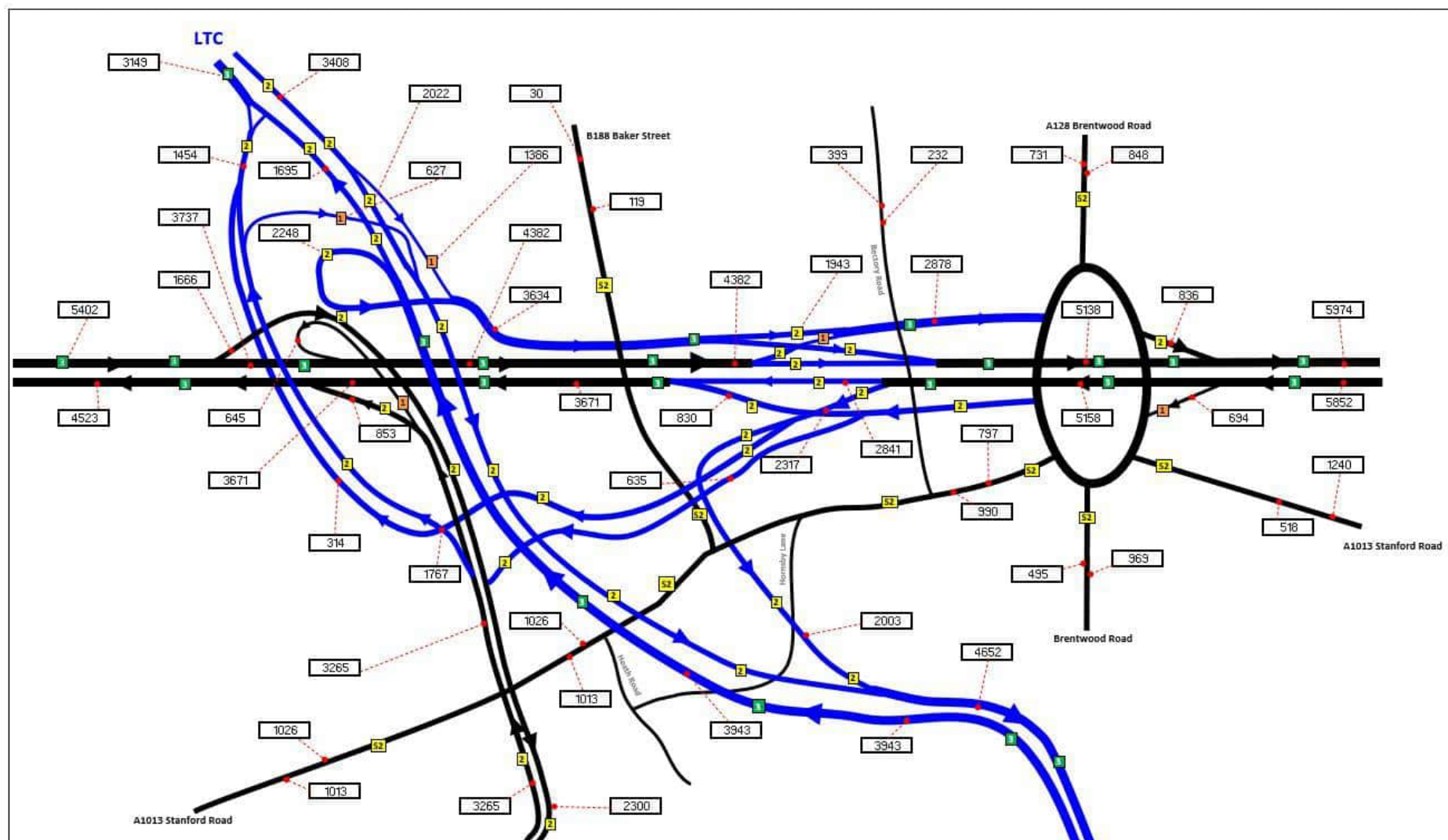
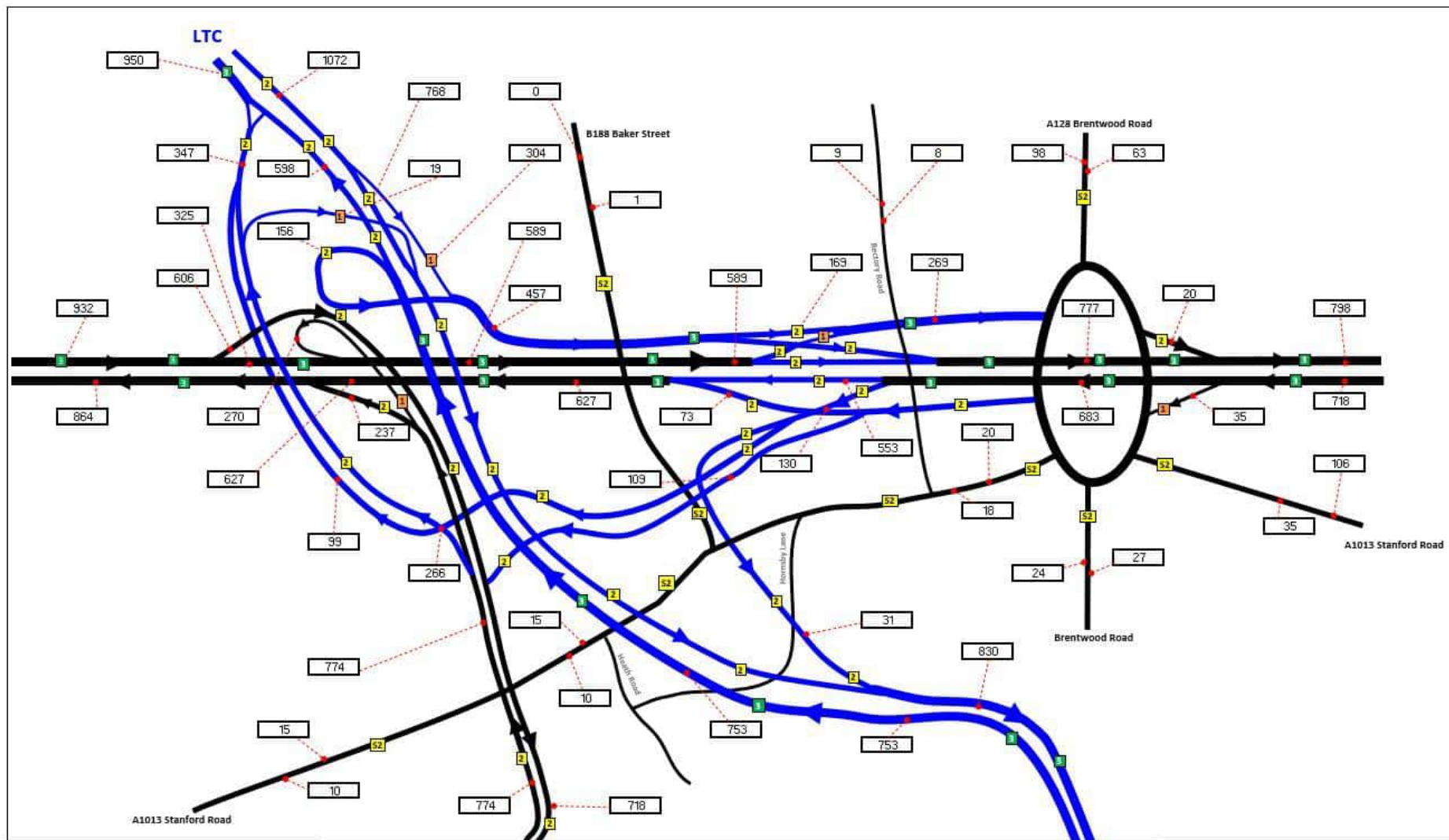
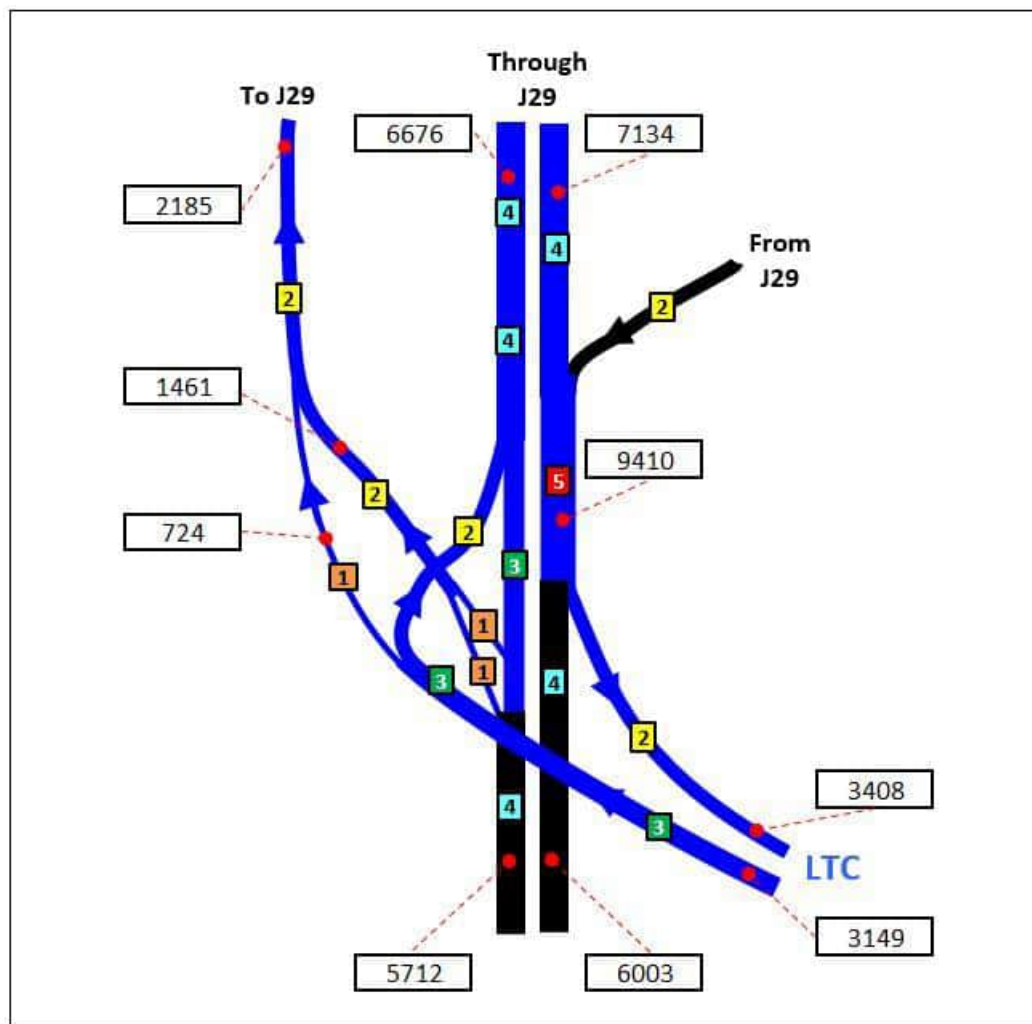


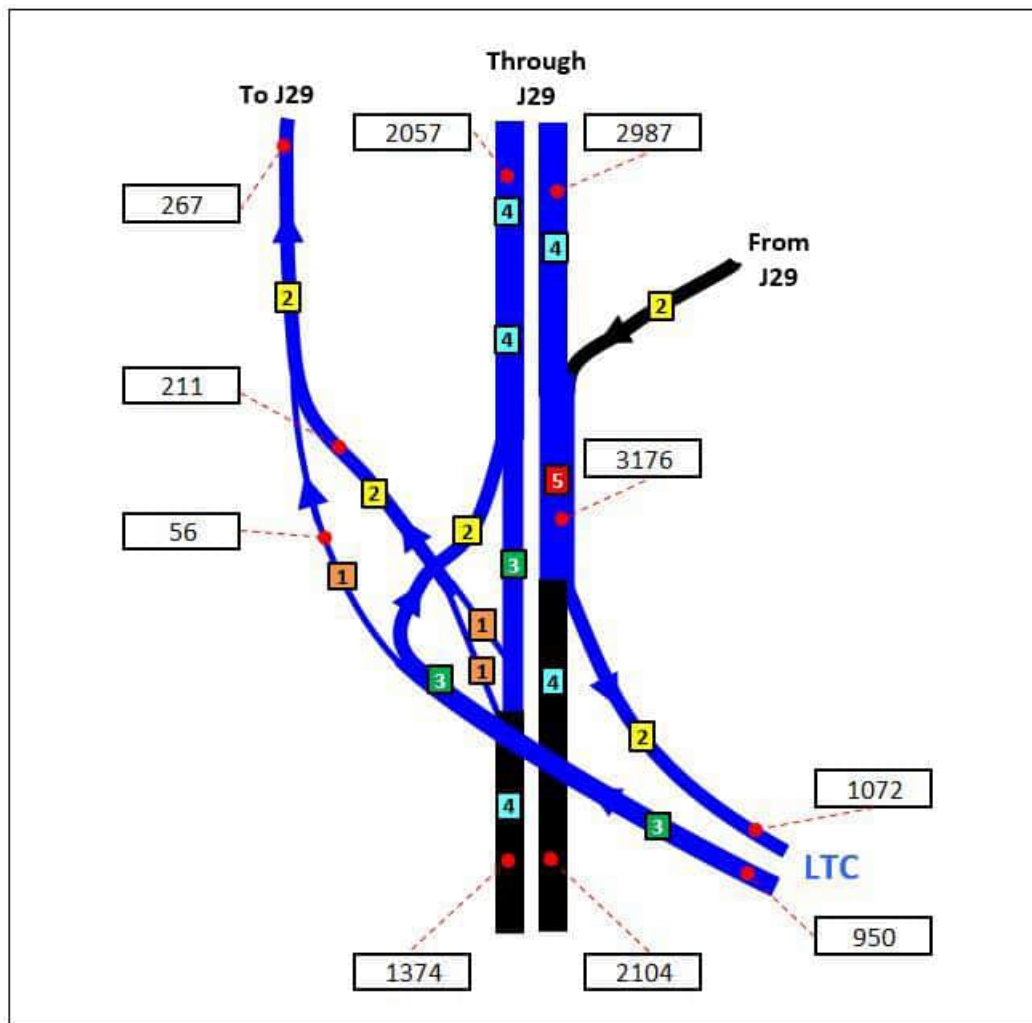
Plate F.70 LTC Junction with A13 – LTAM Predicted Traffic Flows 2037 High Growth PM Peak HGVS (PCUs)



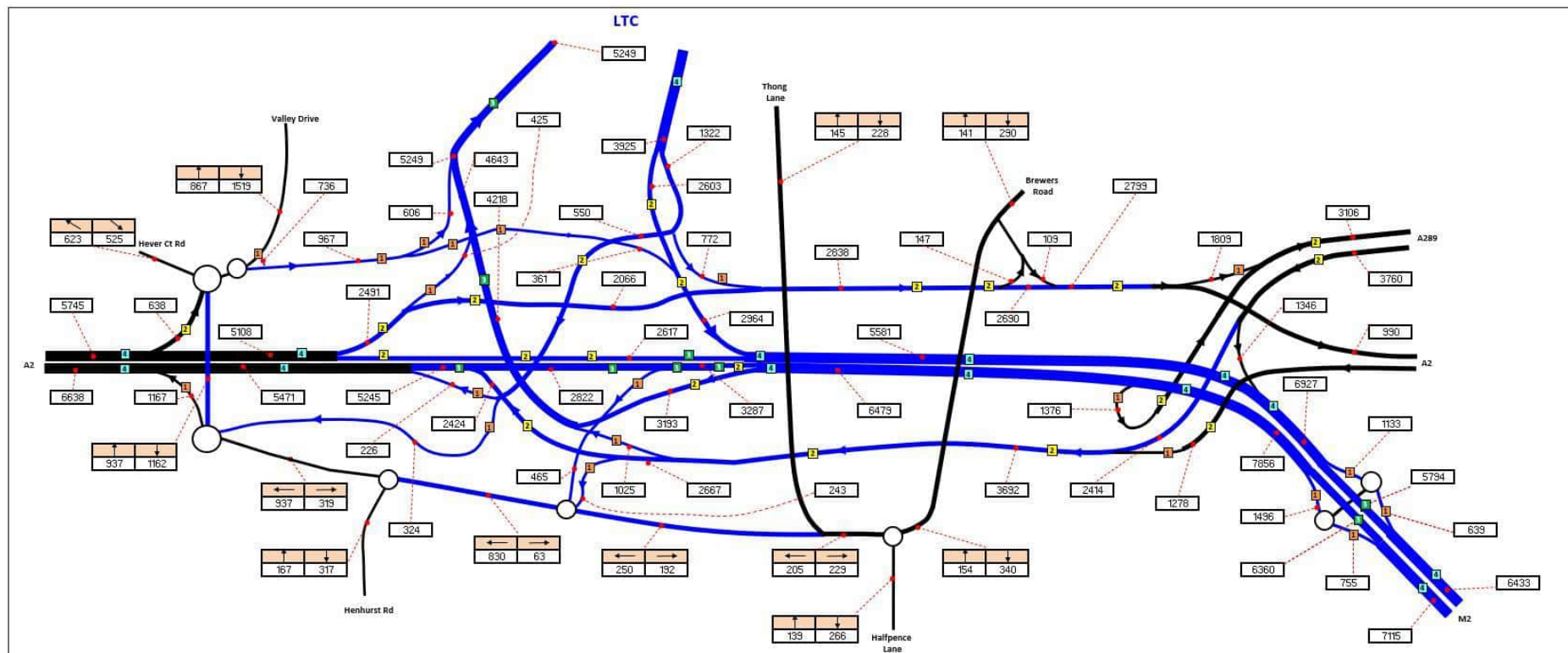
**Plate F.71 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 High Growth PM Peak All Vehicles (PCUs)**



**Plate F.72 LTC Junction with M25 – LTAM Predicted Traffic Flows 2037 High Growth PM Peak HGV (PCUs)**

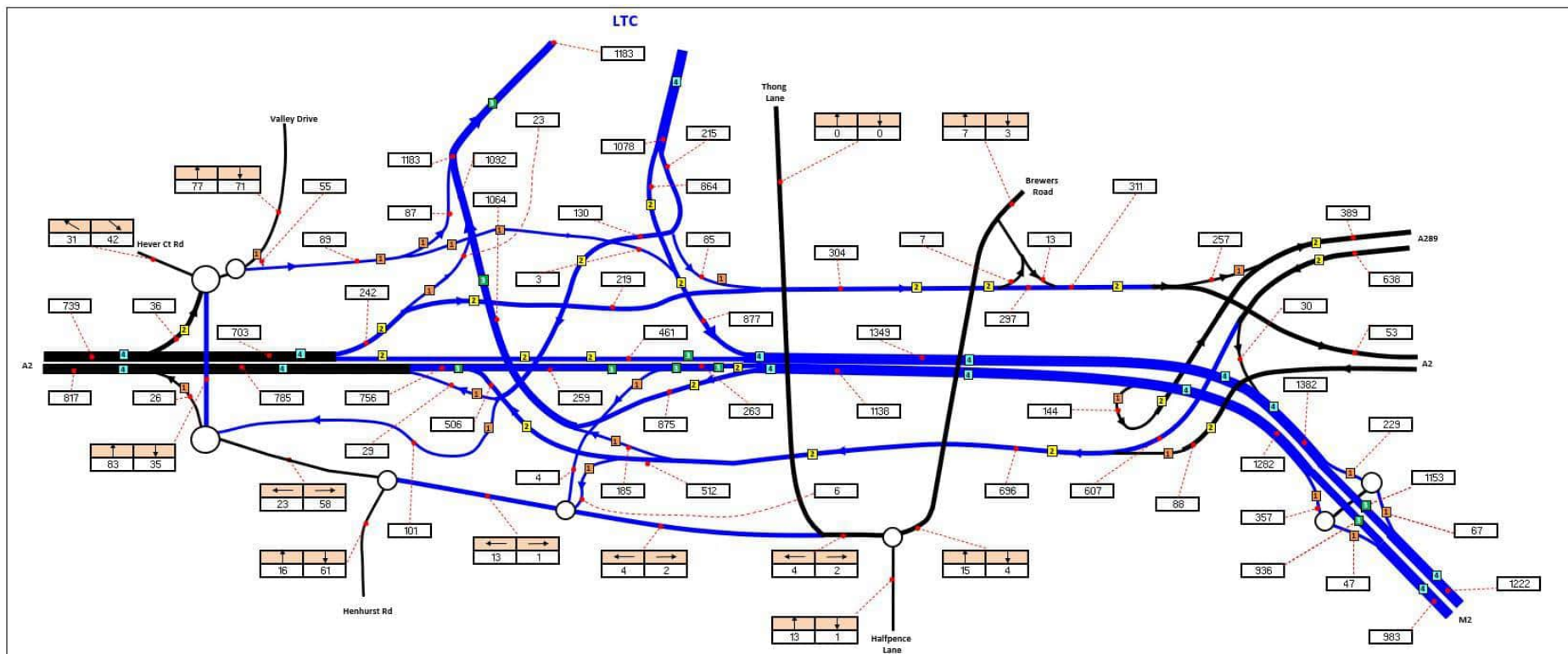


**Plate F.73 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2045 High Growth AM Peak All Vehicles (PCUs)**





**Plate F.74 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2045 High Growth AM Peak HGV (PCUs)**



**Plate F.75 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 High Growth AM Peak All Vehicles (PCUs)**

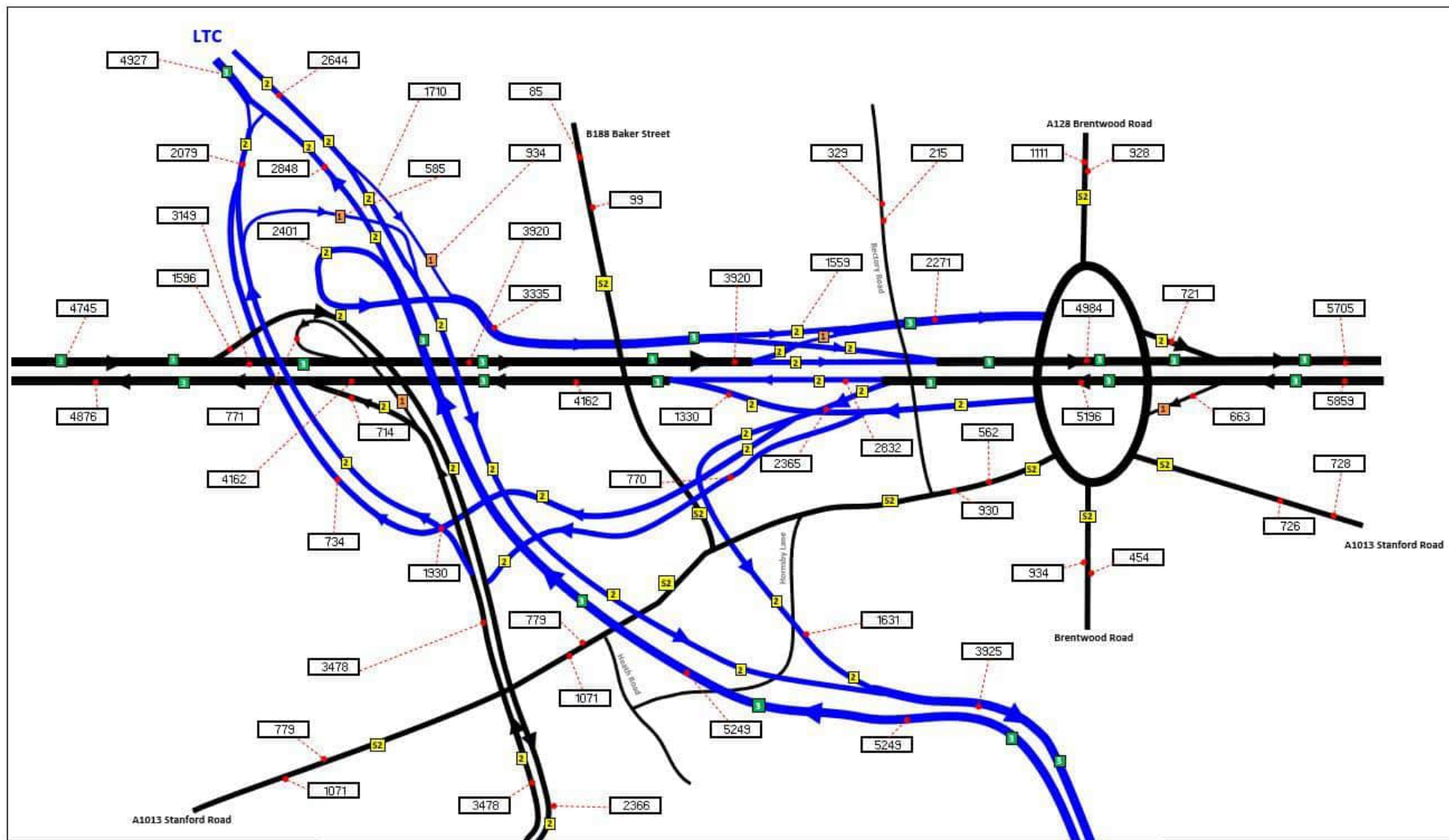
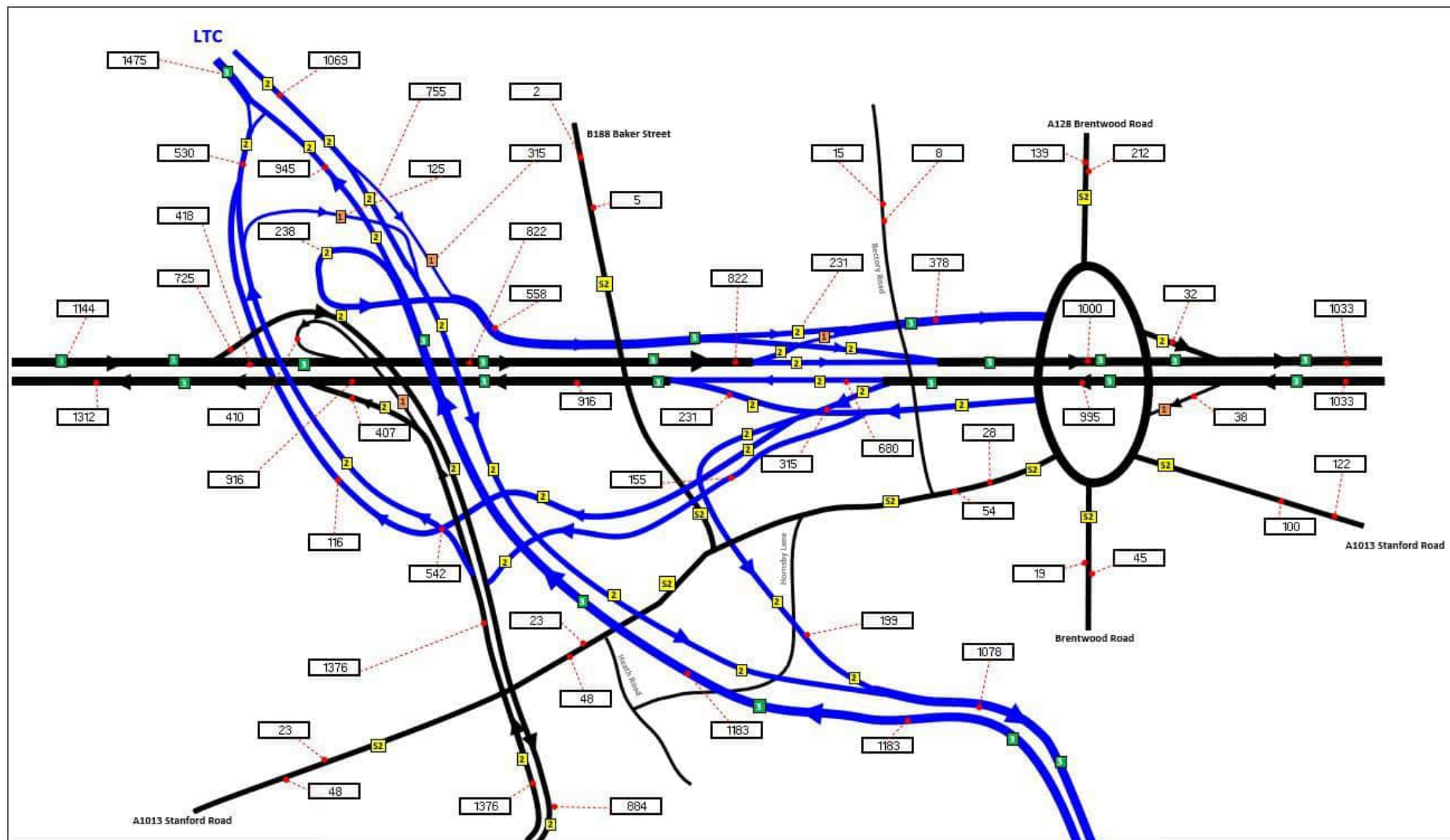
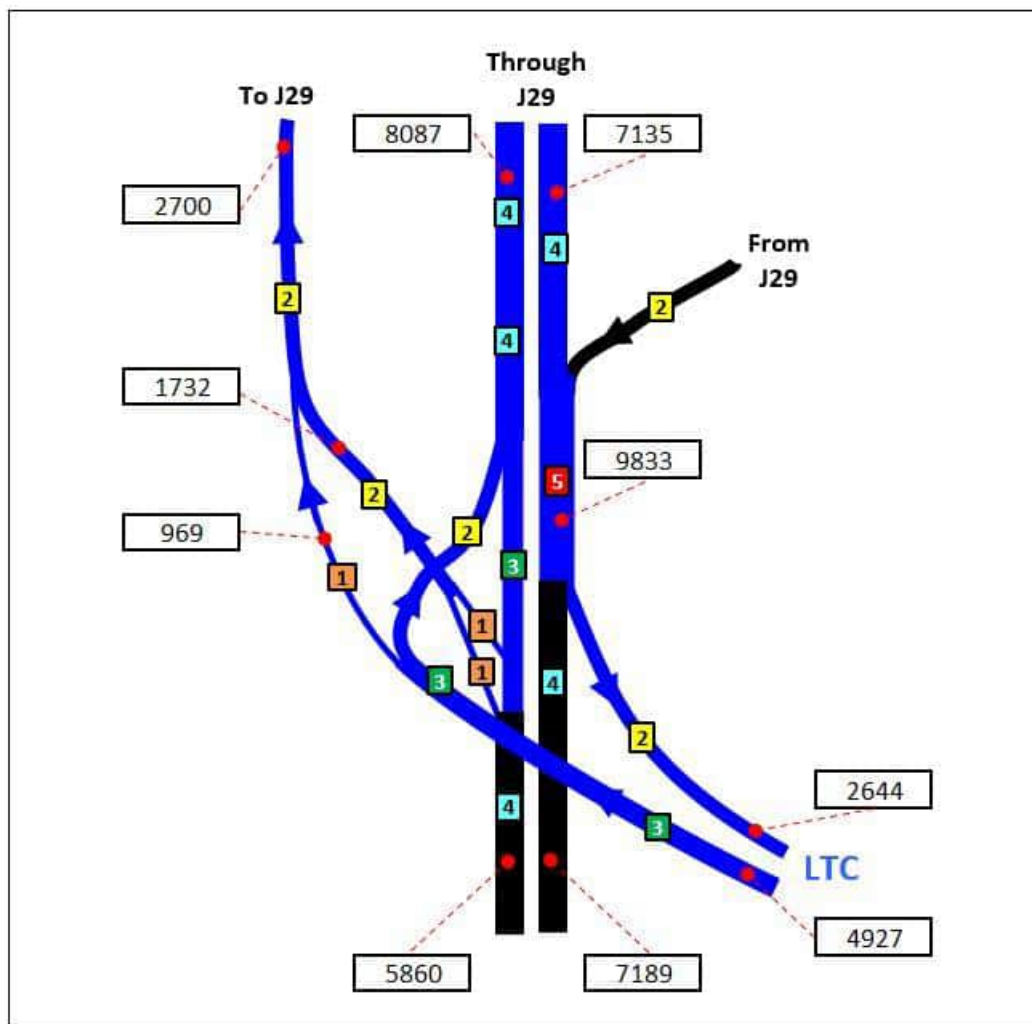


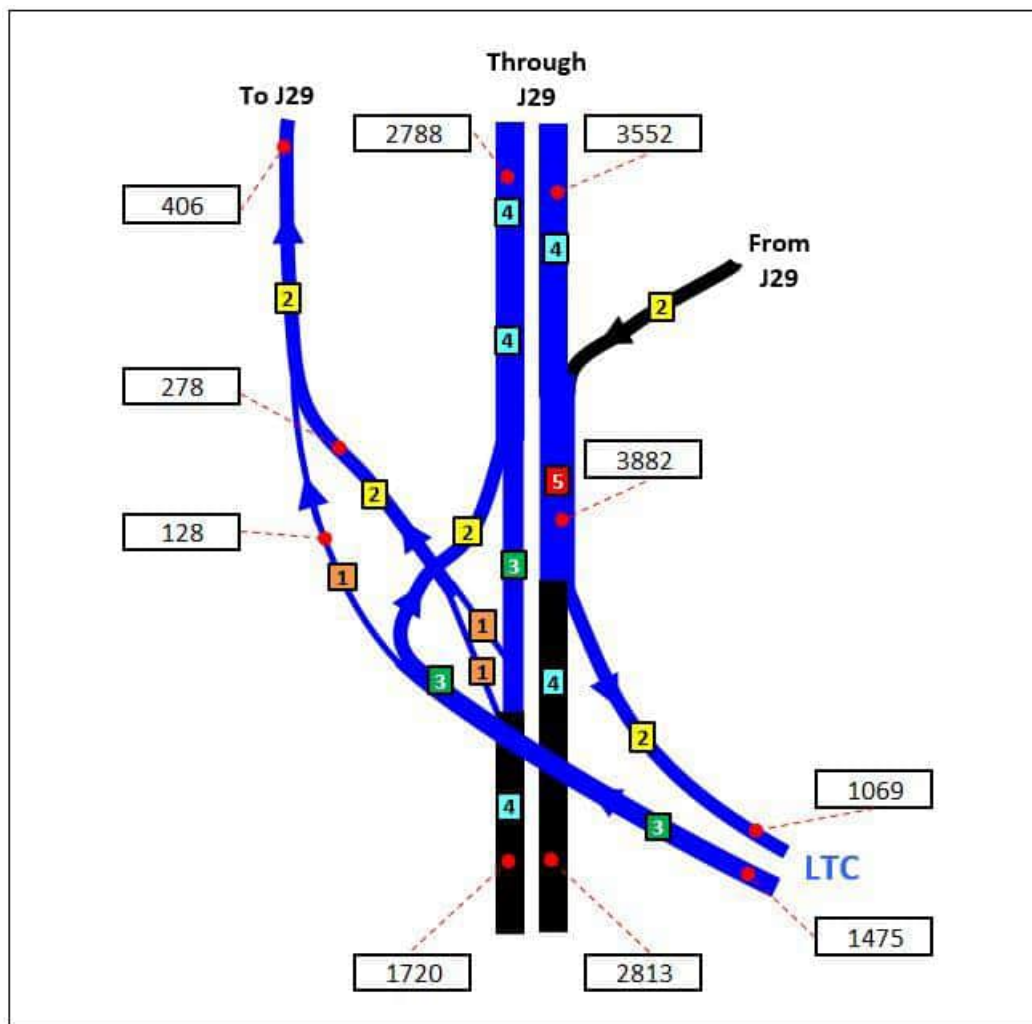
Plate F.76 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 High Growth AM Peak HGV (PCUs)



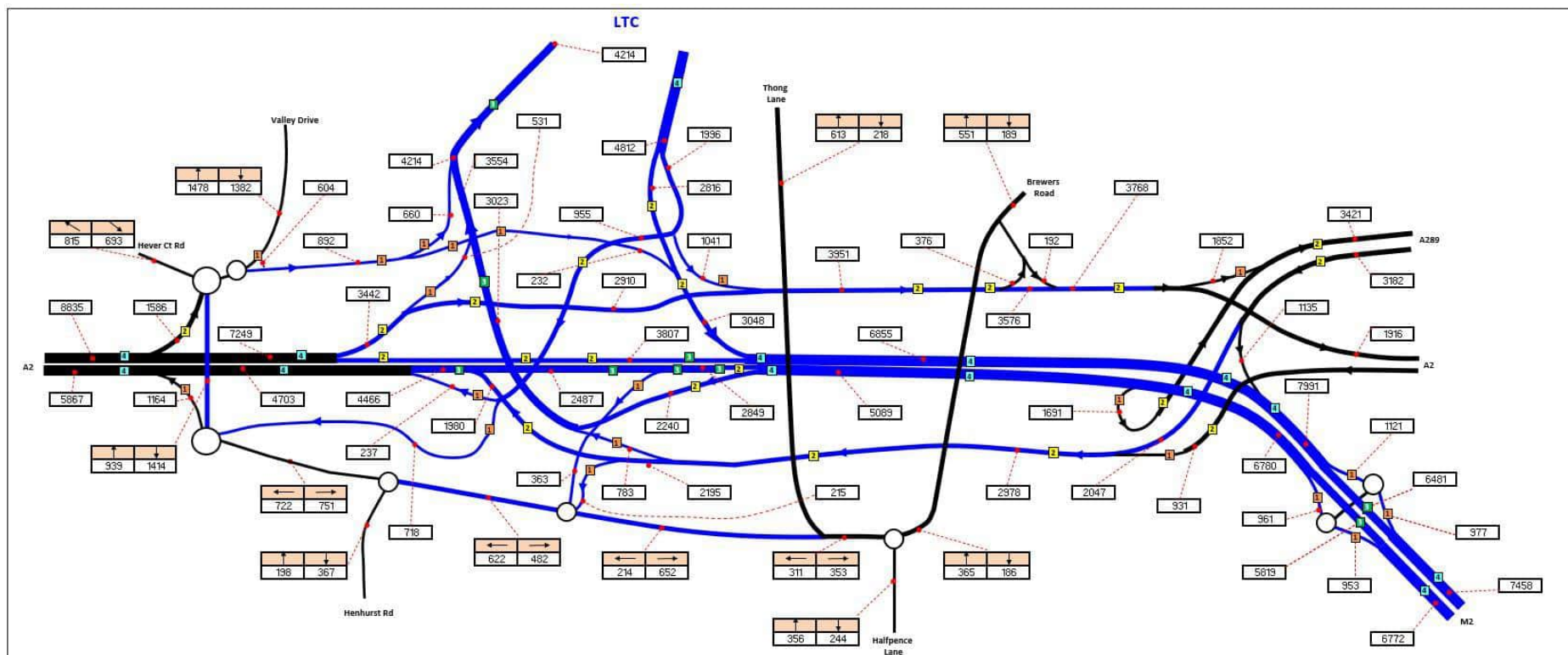
**Plate F.77 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 High Growth AM Peak All Vehicles (PCUs)**



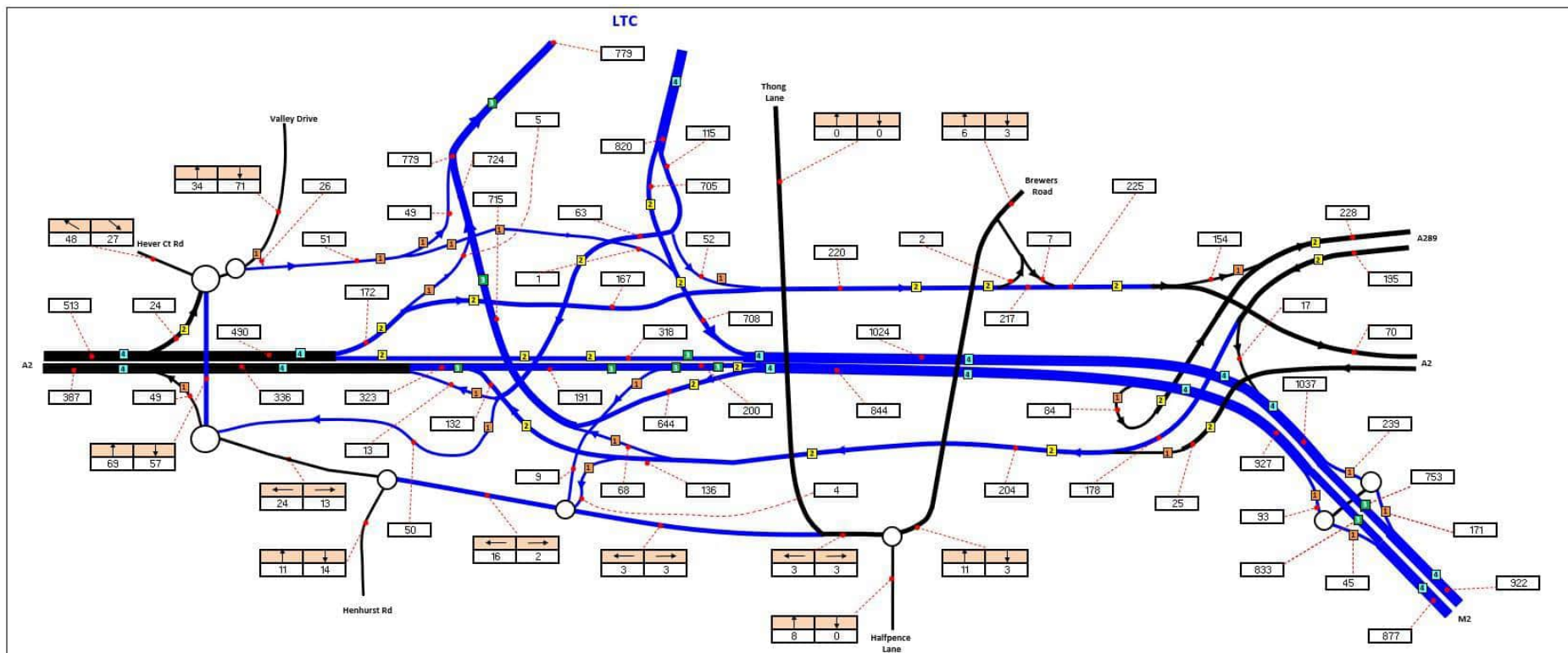
**Plate F.78 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 High Growth AM Peak HGV (PCUs)**



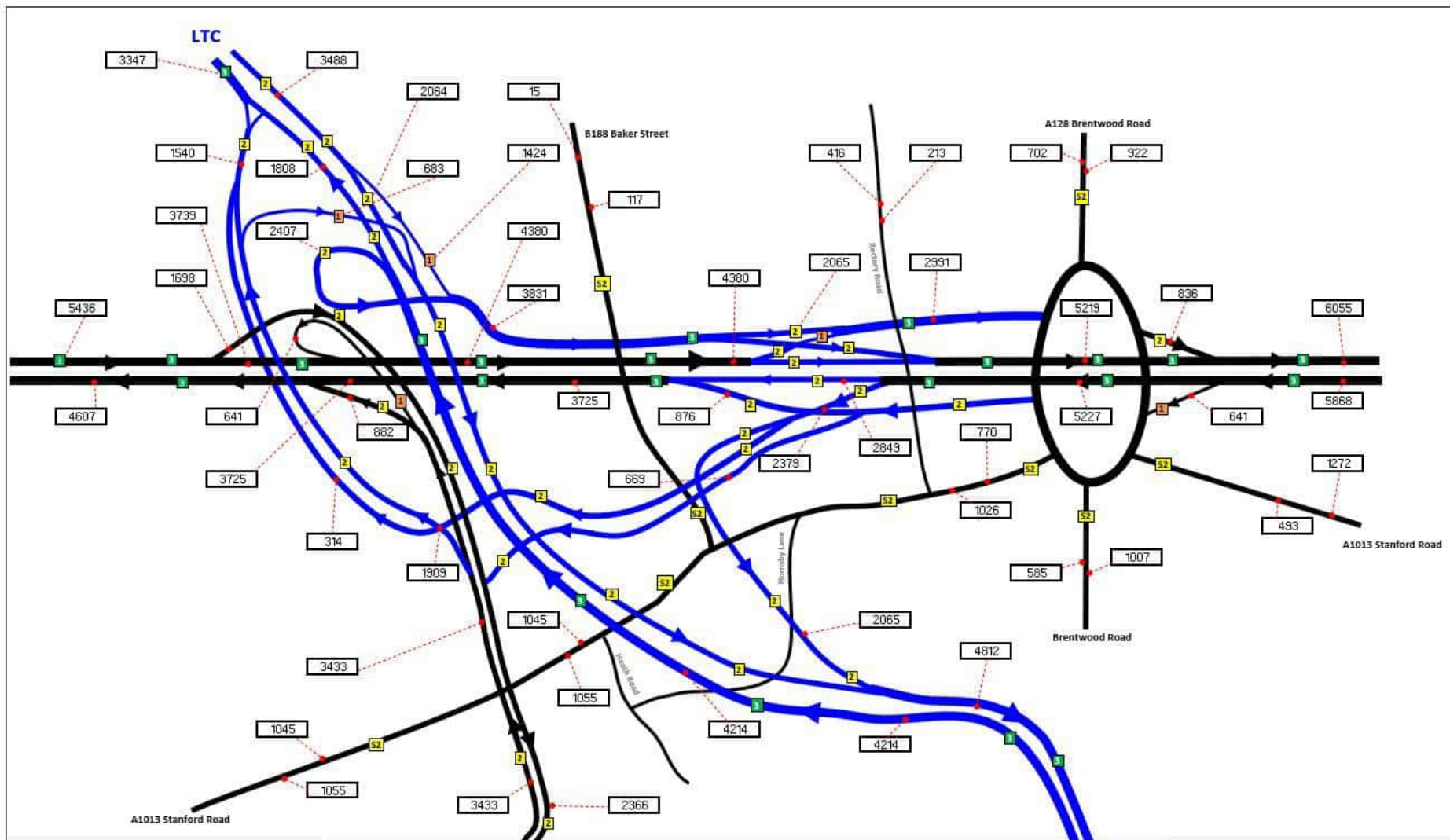
**Plate F.79 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2045 High Growth PM Peak All Vehicles (PCUs)**



**Plate F.80 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2045 High Growth PM Peak HGV (PCUs)**

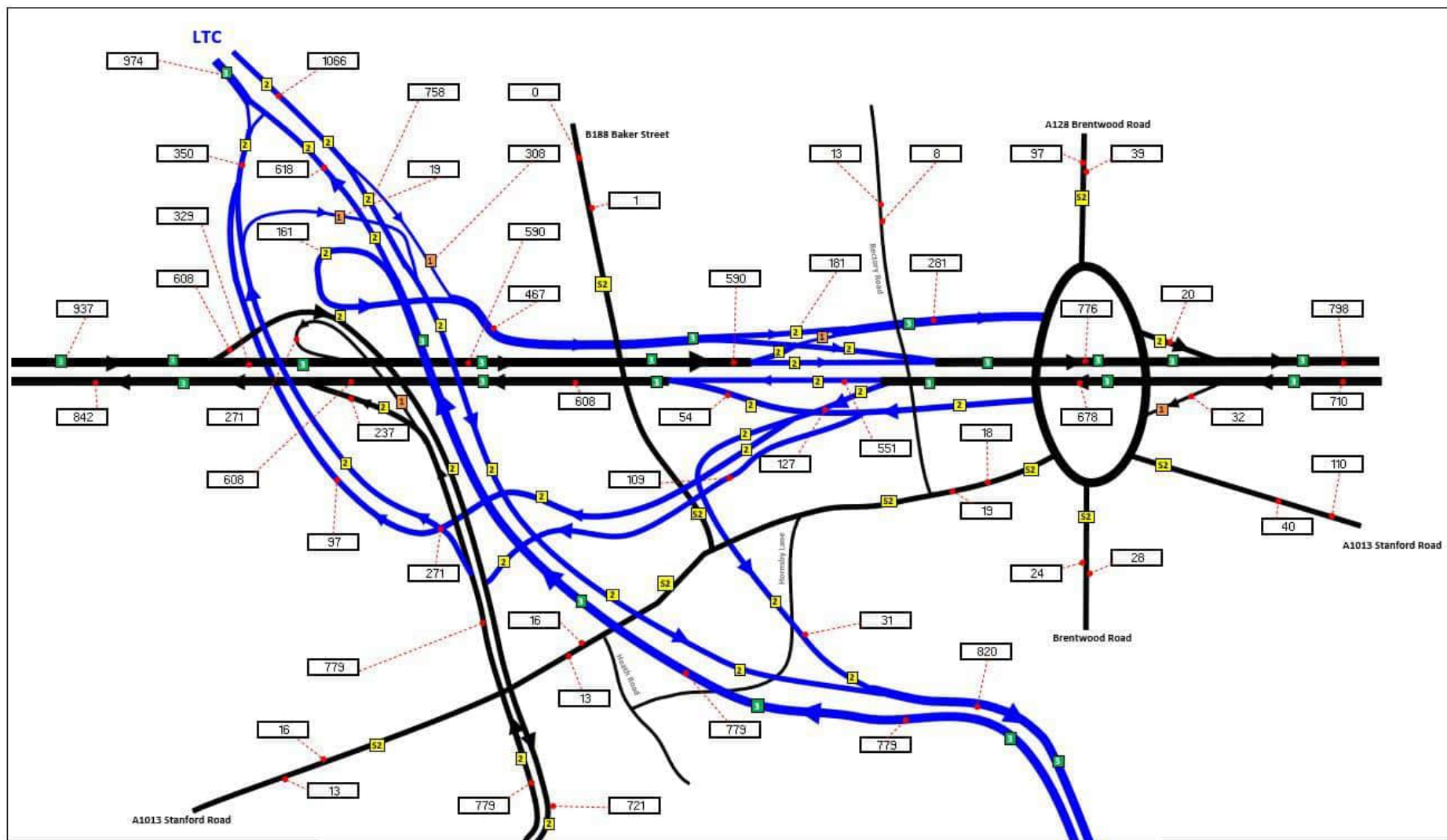


**Plate F.81 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 High Growth PM Peak All Vehicles (PCUs)**

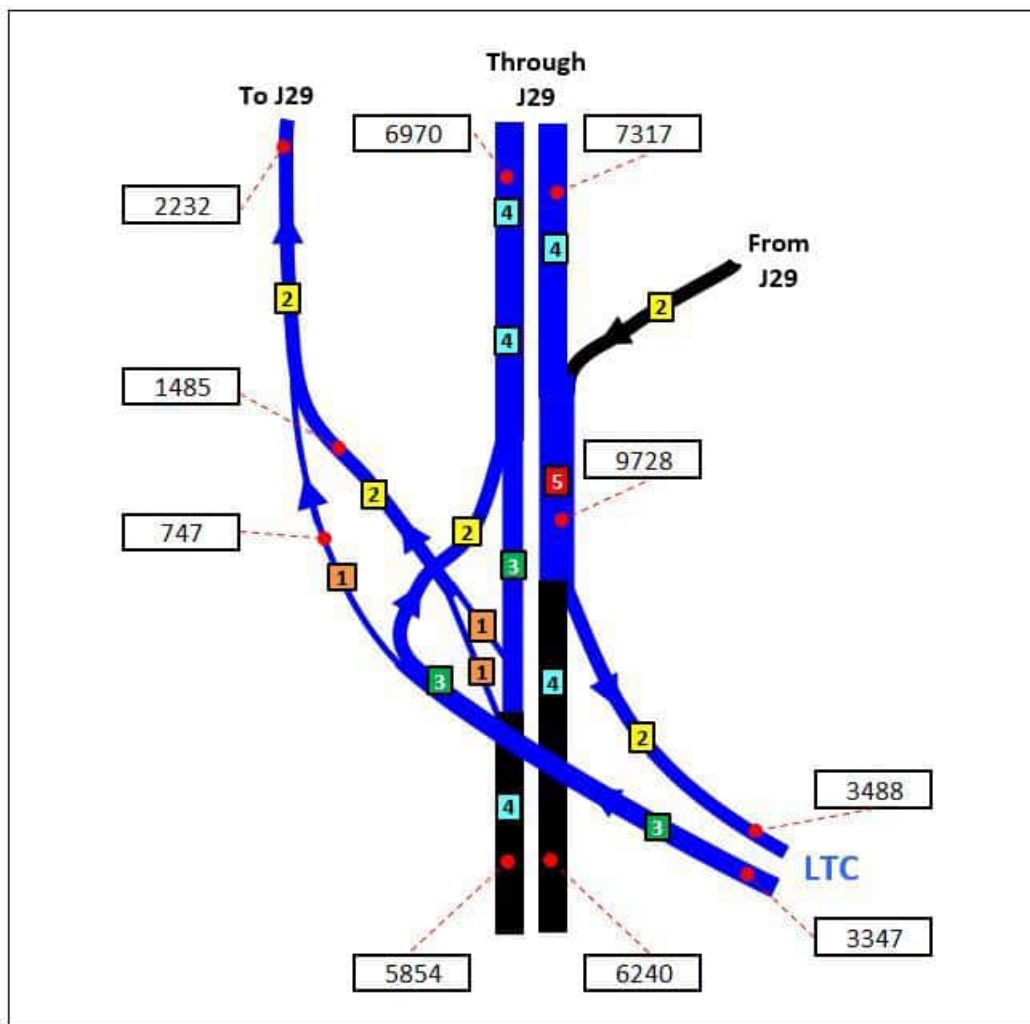




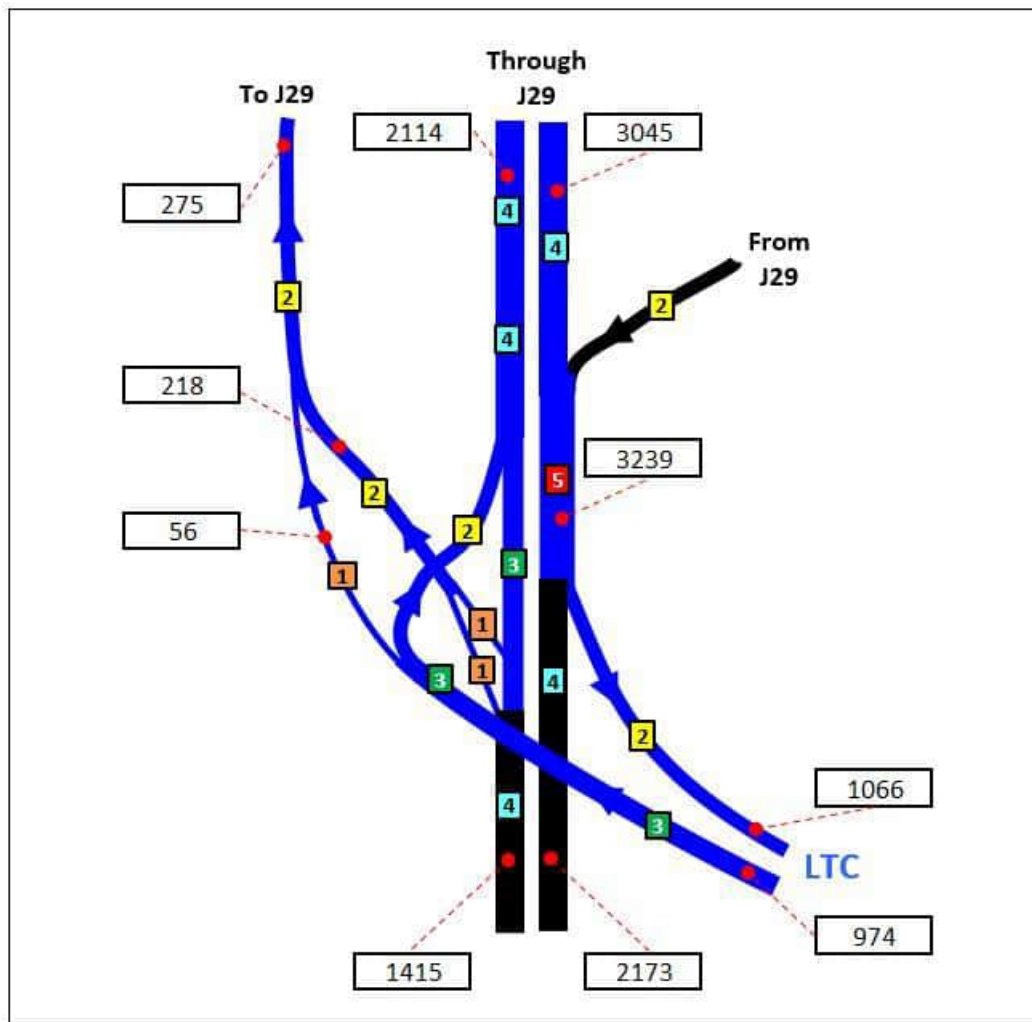
**Plate F.82 LTC Junction with A13 – LTAM Predicted Traffic Flows 2045 High Growth PM Peak HGV (PCUs)**



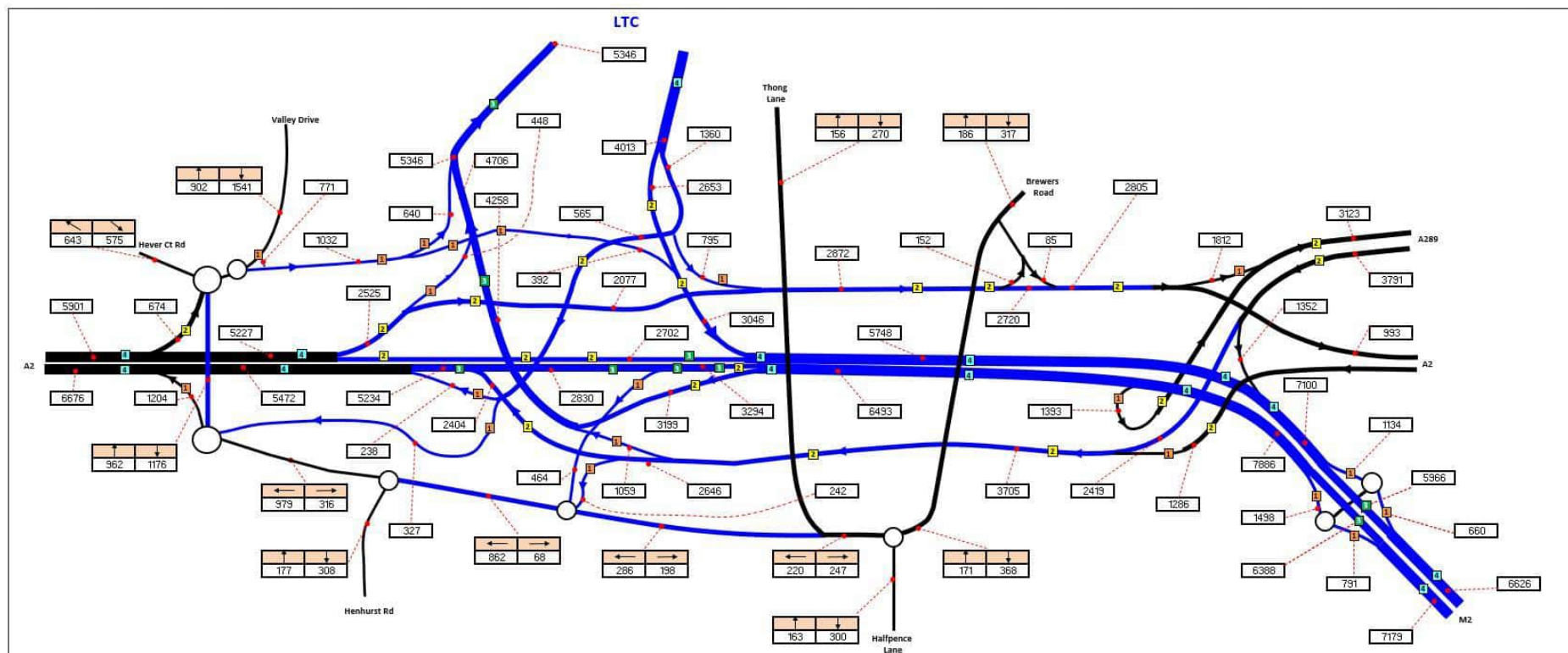
**Plate F.83 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 High Growth PM Peak All Vehicles (PCUs)**



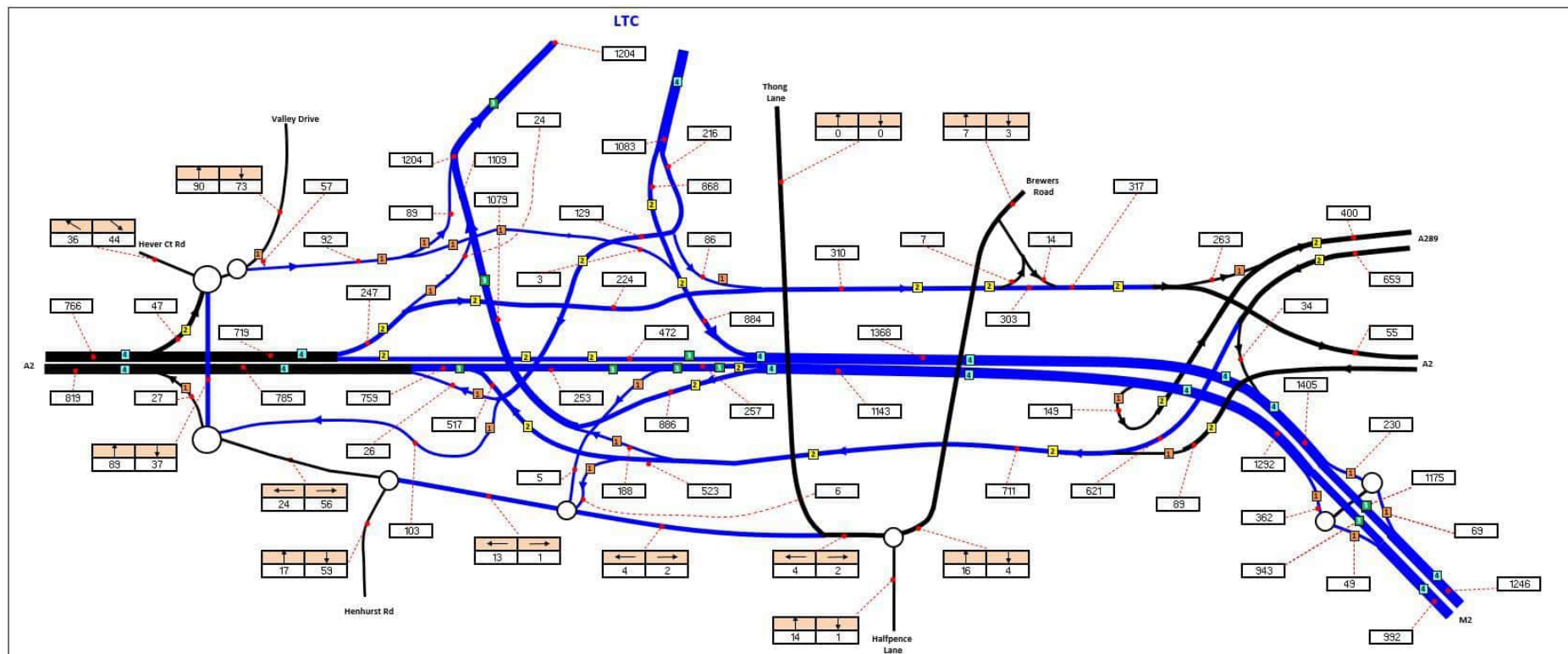
**Plate F.84 LTC Junction with M25 – LTAM Predicted Traffic Flows 2045 High Growth PM Peak HGV (PCUs)**



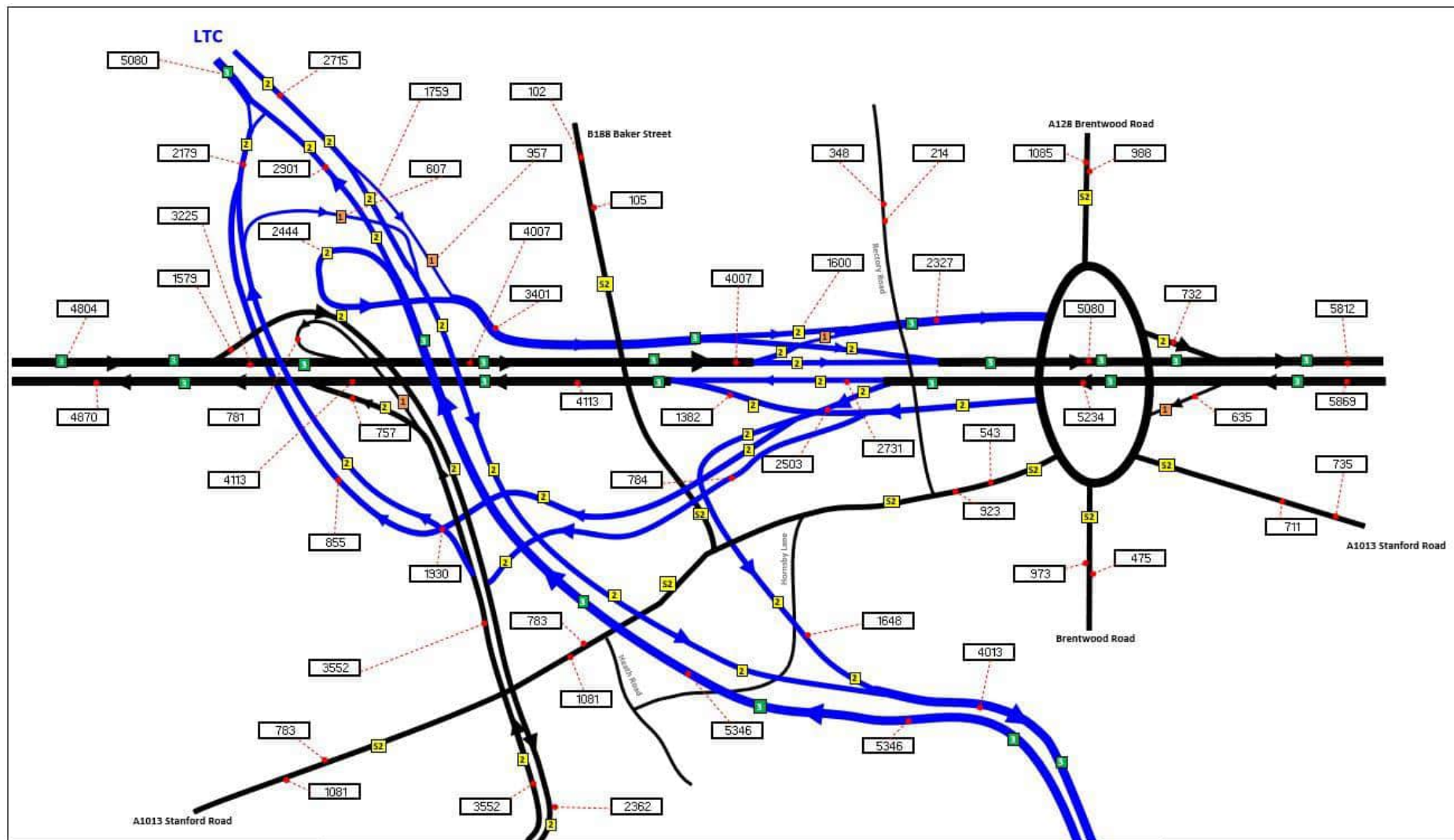
**Plate F.85 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak All Vehicles (PCUs)**



**Plate F.86 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak HGV (PCUs)**

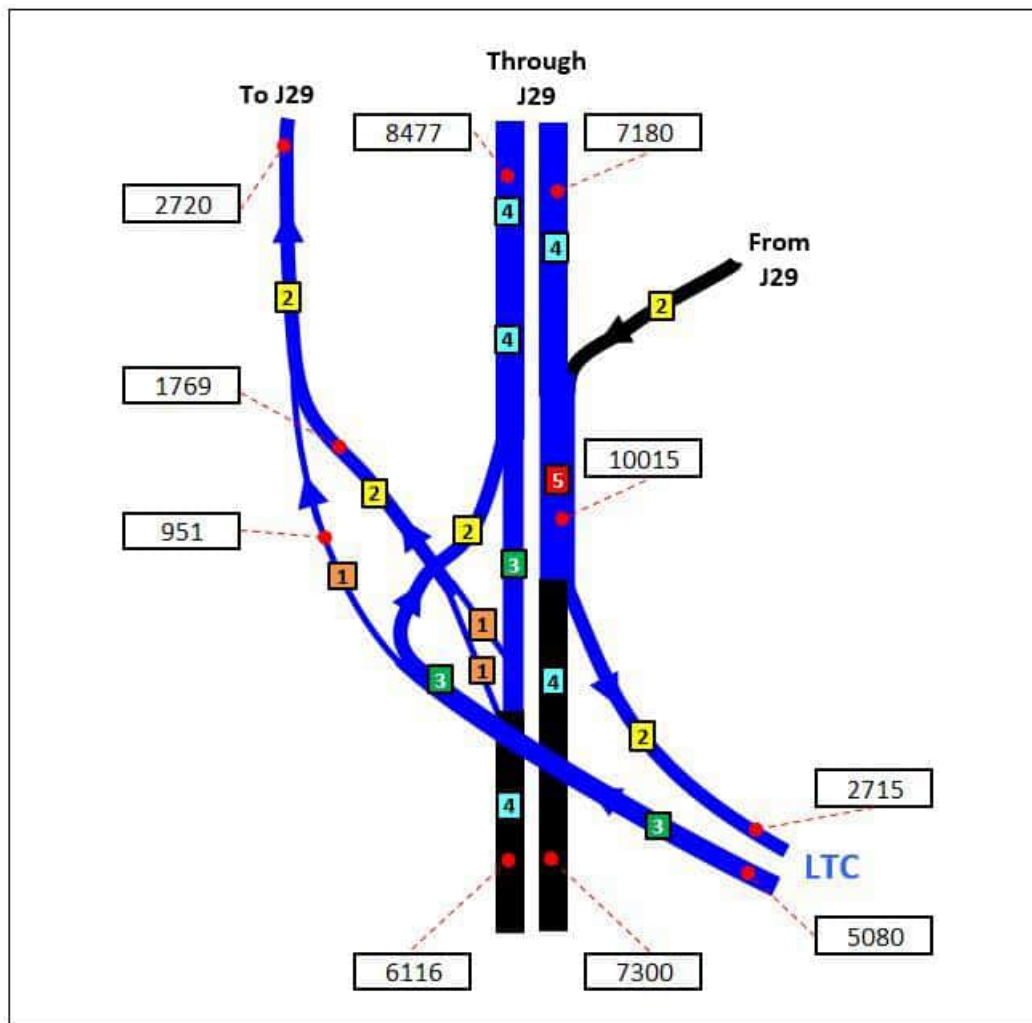


**Plate F.87 LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak All Vehicles (PCUs)**



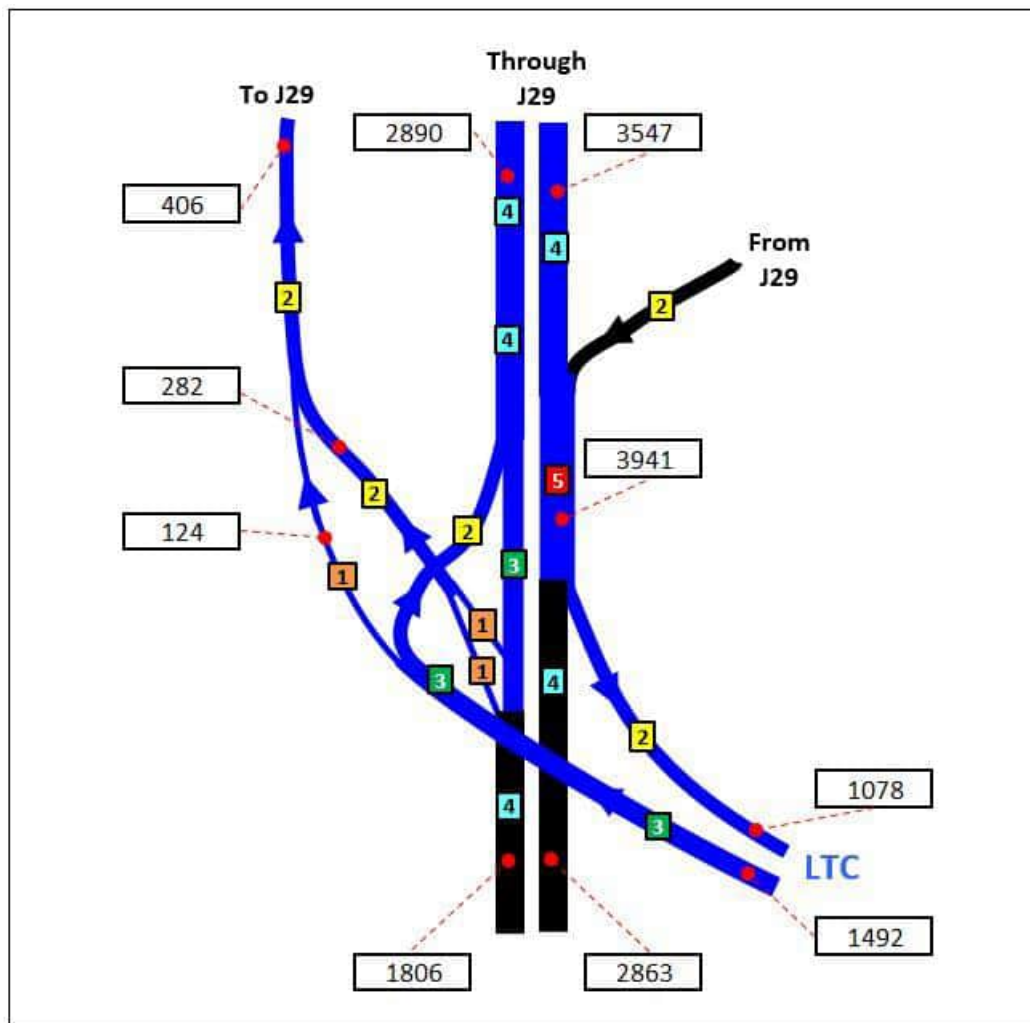


**Plate F.89 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak All Vehicles (PCUs)**

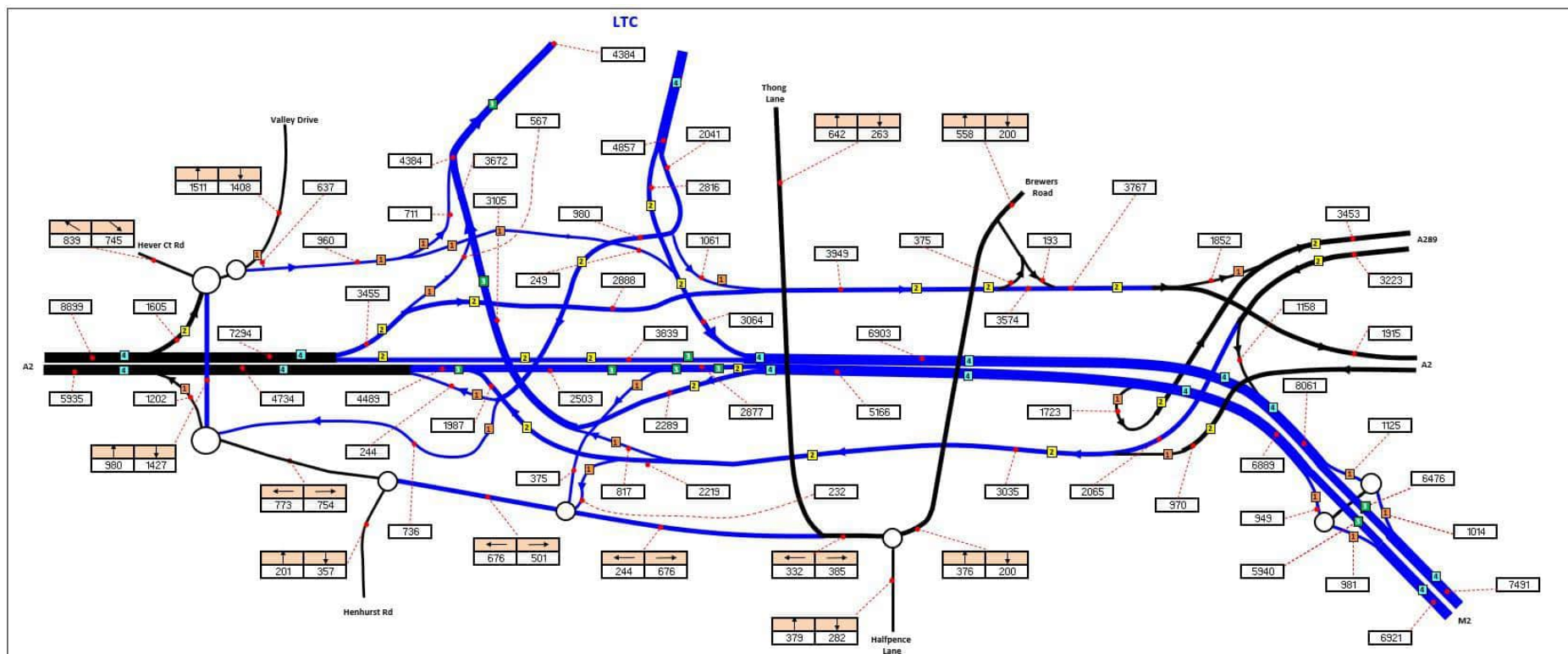




**Plate F.90 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 High Growth AM Peak HGVS (PCUs)**



**Plate F.91 LTC Junction with A2/M2 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak All Vehicles (PCUs)**





**Plate F.93 LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak All Vehicles (PCUs)**

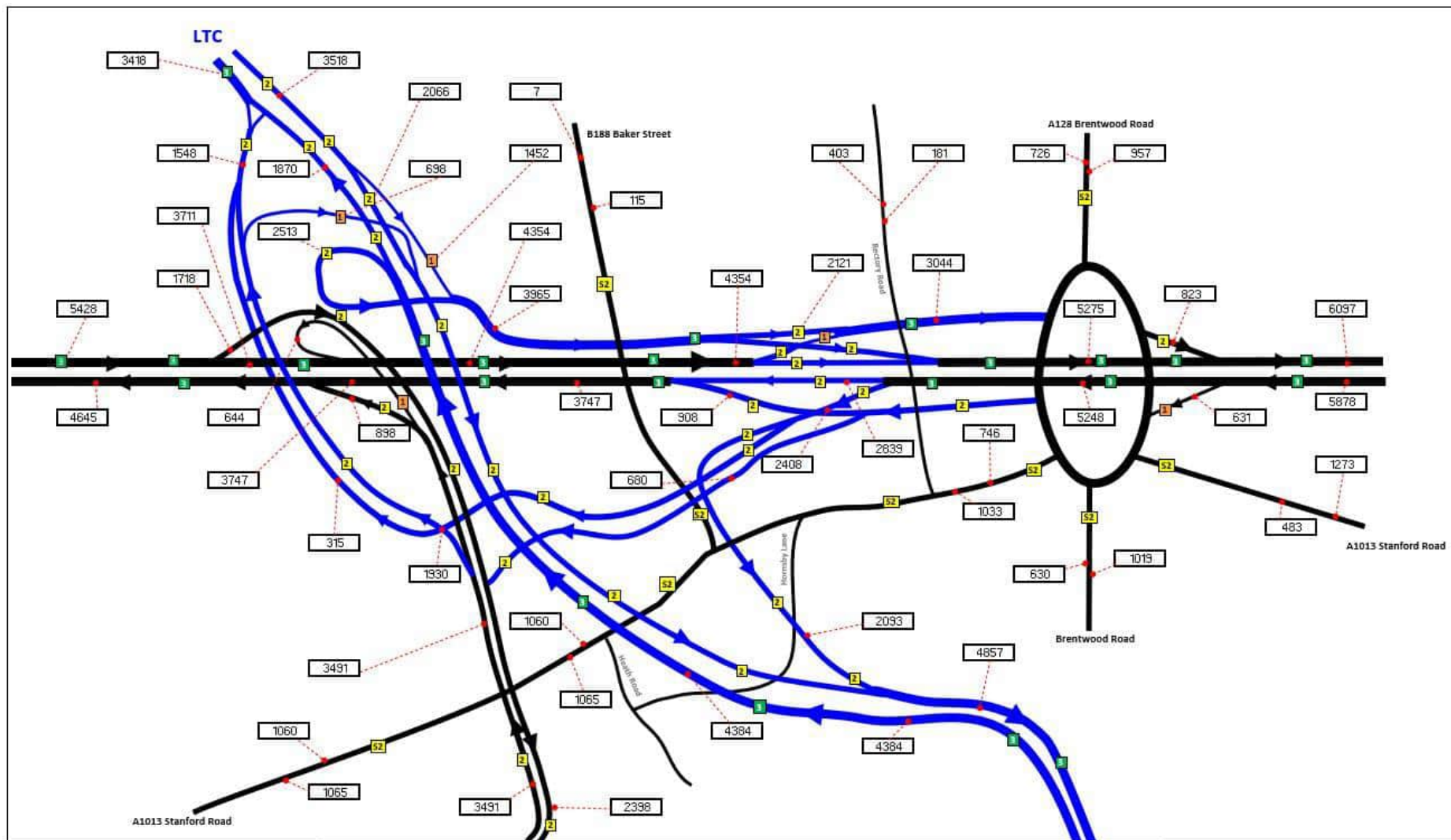
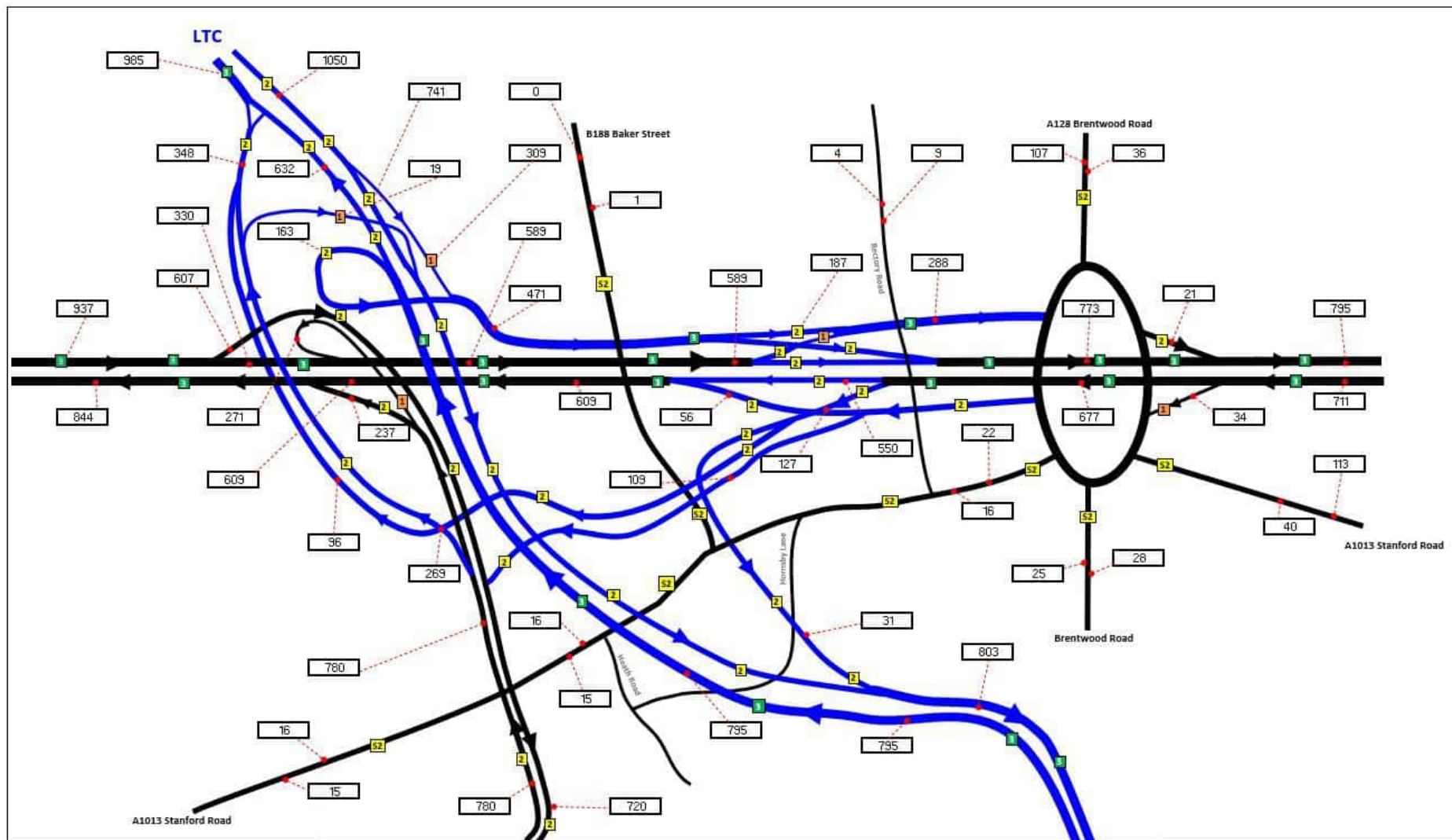
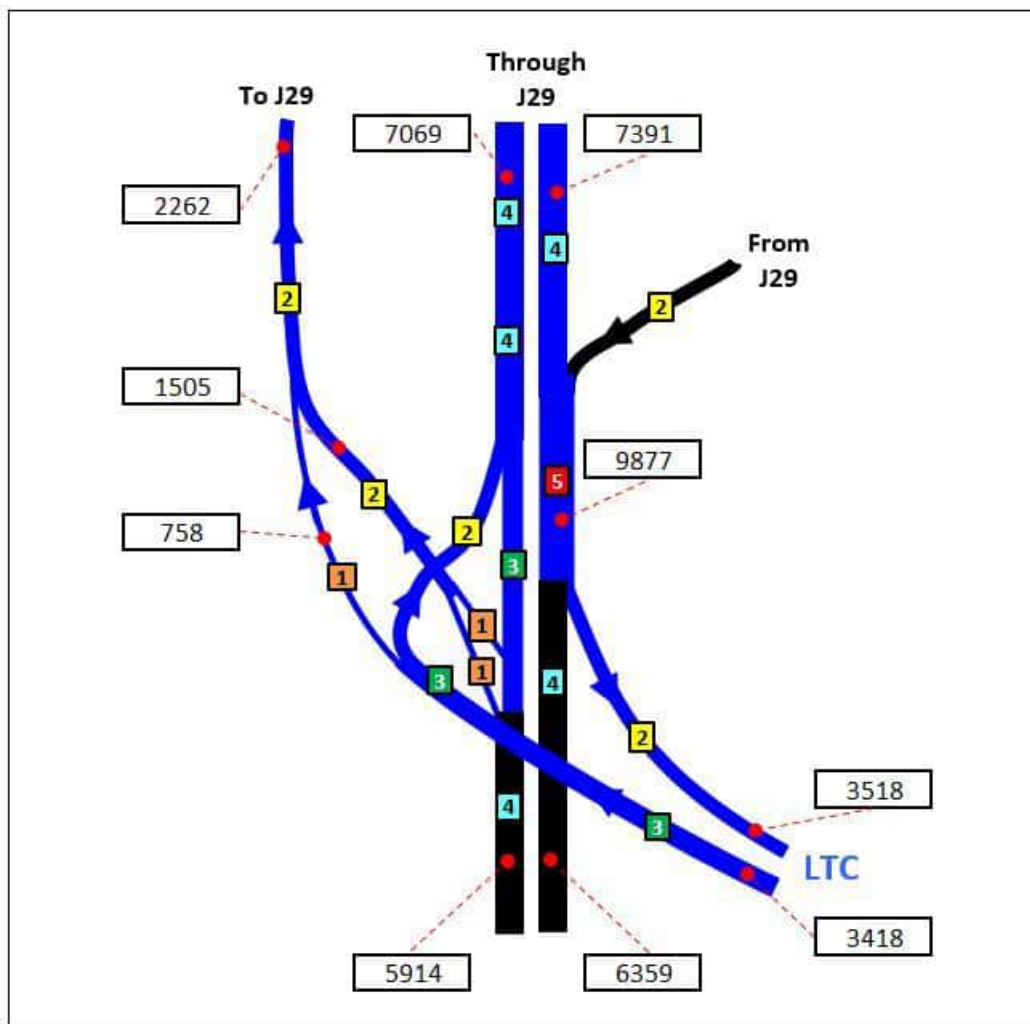


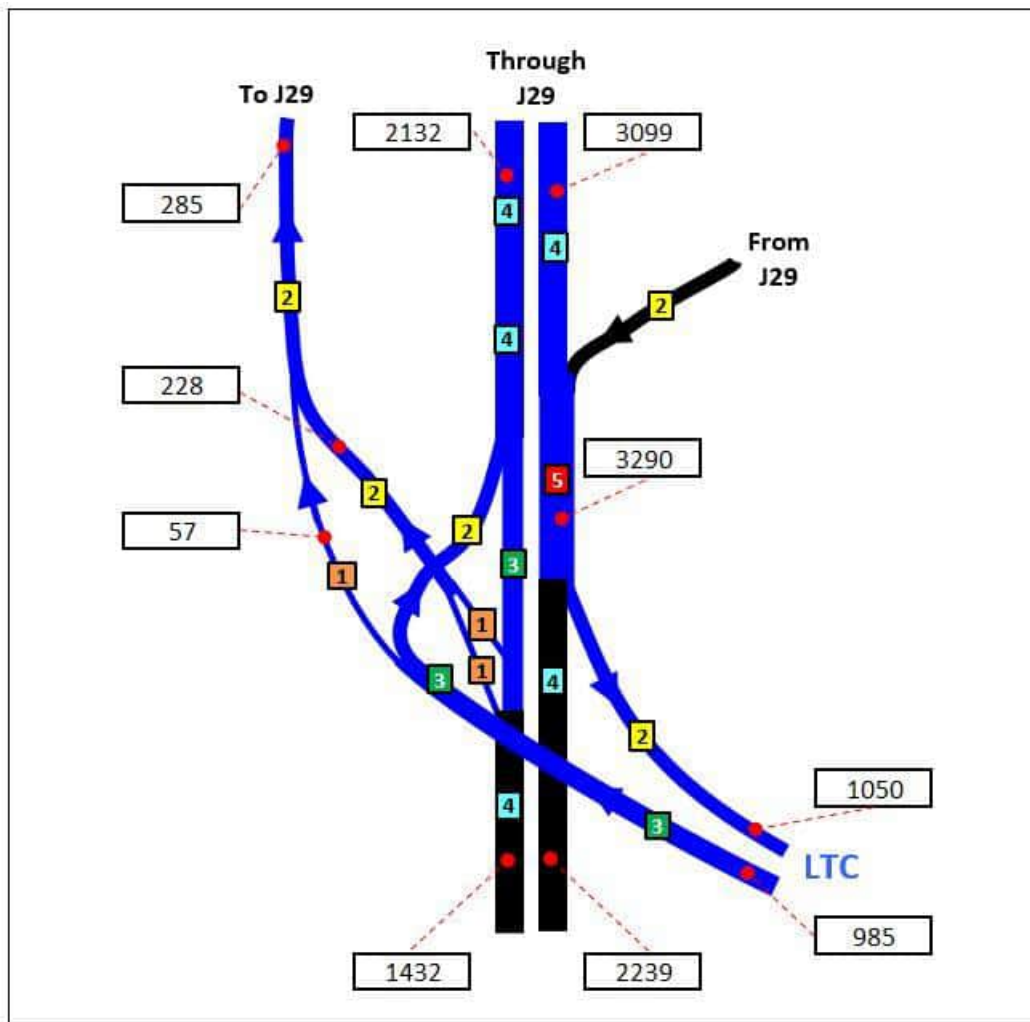
Plate F.94 LTC Junction with A13 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak HGVS (PCUs)



**Plate F.95 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak All Vehicles (PCUs)**



**Plate F.96 LTC Junction with M25 – LTAM Predicted Traffic Flows 2051 High Growth PM Peak HGV (PCUs)**



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