



UNITED
BY OUR
DIFFERENCE



Bracknell Multi-Modal Transport Model
Forecast Model Development and Assessment
Report

Bracknell Forest Council

8th August 2011

QM

| Issue/revision | Issue 1 | Revision 1 | Revision 2 | Revision 3 |
|----------------|--|--------------------------------|-----------------------------|-----------------------------|
| Remarks | Draft | Final following Client Comment | Wokingham Area Update | Revised models |
| Date | 5 th October 2009 | 12 th November 2009 | 1 st August 2011 | 8 th August 2011 |
| Prepared by | Sally Johnson Michael Johns Nadia Lyubimova | Sally Johnson | Sally Johnson | Sally Johnson |
| Signature | Sally Johnson Michael Johns Nadia Lyubimova | Sally Johnson | Sally Johnson | Sally Johnson |
| Checked by | Stephen Reed | Craig Drennan | Stephen Reed | Stephen Reed |
| Signature | Stephen Reed | Craig Drennan | Stephen Reed | Stephen Reed |
| Authorised by | Stephen Reed | Craig Drennan | Stephen Reed | Stephen Reed |
| Signature | Stephen Reed | Craig Drennan | Stephen Reed | Stephen Reed |
| Project number | 11570137 | | 11570343 | |
| File reference | BMMTM Forecast Report v5.0.docx | | | |

WSP Development and Transportation
Mountbatten House
Basing View
Basingstoke
Hampshire
RG21 4HJ

Tel: +44 (0)1256 318800
Fax: +44 (0)1256 318700
<http://www.wspgroup.com>

Contents

| | |
|-----------------------------|----|
| EXECUTIVE SUMMARY | 1 |
| 1 Introduction | 3 |
| 2 Forecasting Approach | 5 |
| 3 BFB Development Proposals | 15 |
| 4 2026 Forecast | 18 |
| 5 Results | 27 |
| 6 Conclusion | 97 |

| | |
|--|--|
| Appendix A Full Modelling Results | |
| Appendix B BFB Forecast Junction Layouts | |

List of Tables

| | |
|---|----|
| Table 2.1: Population Segmentation | 6 |
| Table 2.2: 2001 NTS Trip Rates | 8 |
| Table 2.3: 2001 Non Home Based Trip Rates (Secondary Ratio to HB) | 8 |
| Table 2.4: Trip Attraction Variables | 9 |
| Table 2.5: Trip Attraction Input to BMMTM | 10 |
| Table 2.6: Fuel Resource Costs | 11 |
| Table 2.7: Values of Time by Journey Purpose | 12 |
| Table 2.8: Parking Charges | 12 |
| Table 2.9: Public Transport Fares – Rail | 12 |
| Table 2.10: Public Transport Fares – Bus | 12 |
| Table 3.1: Population and Household Projections for the Bracknell Forest Area | 15 |
| Table 4.1: Population Projections for Bracknell Forest Borough | 18 |
| Table 4.2: Bracknell Residential Development Proposals (phasing may change) | 19 |
| Table 4.3: Wokingham Residential Development Proposals (to 2026) | 21 |
| Table 4.4: Bracknell Employment Developments (by 2026) | 22 |
| Table 4.5: Wokingham Employment Developments (by 2026) | 22 |
| Table 4.6: Town Centre Redevelopment Proposals | 23 |
| Table 4.7: Bracknell Forest Borough Highway Improvement Schemes | 24 |
| Table 4.8: Wokingham Borough Highway Improvement Schemes | 24 |
| Table 4.9: Public Transport Improvement Schemes | 25 |
| Table 4.10: Bus Service Frequency Changes | 26 |
| Table 4.11: Slow Mode Walk/Cycle Improvements | 26 |
| Table 5.1: 24-Hour Trip Generation | 28 |
| Table 5.2: AM Peak Car Matrix Summary | 28 |
| Table 5.3: PM Peak Car Matrix Summary | 28 |
| Table 5.4: AM Peak Public Transport Matrix Summary | 28 |
| Table 5.5: PM Peak Public Transport Matrix Summary | 29 |
| Table 5.6: AM Peak HGV Matrix Summary | 29 |
| Table 5.7: PM Peak HGV Matrix Summary | 29 |
| Table 5.8: AM Peak Screenline / Cordon Summary | 33 |
| Table 5.9: PM Peak Screenline / Cordon Summary | 33 |
| Table 5.10: AM Peak Traffic Flows on Key Links | 37 |
| Table 5.11: PM Peak Traffic Flows on Key Links | 45 |
| Table 5.12: AM Peak RFC on Key Links | 54 |
| Table 5.13: PM Peak RFC on Key Links | 59 |
| Table 5.14: Journey Time Summary - AM Peak | 66 |
| Table 5.15: Journey Time Summary - PM Peak | 81 |
| Table 5.16: BFB Junctions Identified for Mitigation | 96 |

List of Figures

| | | |
|--------------|--|----|
| Figure 2.1: | Bracknell VISUM Main Study Area Network Coverage | 6 |
| Figure 2.2: | Bracknell VISUM Zones 1 to 8 | 10 |
| Figure 5.1: | AM Peak Network Statistics | 30 |
| Figure 5.2: | PM Peak Network Statistics | 30 |
| Figure 5.3: | Screenlines and Cordons | 32 |
| Figure 5.4: | AM Peak Growth on Screenlines / Cordons Relative to Base Year | 34 |
| Figure 5.5: | PM Peak Growth on Screenlines / Cordons Relative to Base Year | 34 |
| Figure 5.6: | AM Peak 2007 Base Year Flow – Town Centre | 40 |
| Figure 5.7: | AM Peak 2007 Base Year Flow – Wider Area | 40 |
| Figure 5.8: | AM Peak 2026 Ref Case and 2007 Base Year Flow Comparison – Town Centre | 41 |
| Figure 5.9: | AM Peak 2026 Ref Case and 2007 Base Year Flow Comparison – Wider Area | 42 |
| Figure 5.10: | AM Peak 2026 Core Forecast and 2026 Ref Case Flow Comparison – Town Centre | 43 |
| Figure 5.11: | AM Peak 2026 Core Forecast and 2026 Ref Case Flow Comparison – Wider Area | 44 |
| Figure 5.12: | PM Peak 2007 Base Year Flow – Town Centre | 48 |
| Figure 5.13: | PM Peak 2007 Base Year Flow – Wider Area | 49 |
| Figure 5.14: | PM Peak 2026 Ref Case and 2007 Base Year Flow Comparison – Town Centre | 50 |
| Figure 5.15: | PM Peak 2026 Ref Case and 2007 Base Year Flow Comparison – Wider Area | 51 |
| Figure 5.16: | PM Peak 2026 Forecast and 2026 Ref Case Flow Comparison – Town Centre | 52 |
| Figure 5.17: | PM Peak 2026 Forecast and 2026 Ref Case Flow Comparison – Wider Area | 53 |
| Figure 5.18: | 2007 Base Year AM Peak RFC Plot – Town Centre | 56 |
| Figure 5.19: | 2007 Base Year AM Peak RFC Plot – Wider Area | 56 |
| Figure 5.20: | 2026 Reference Case AM Peak RFC Plot – Town Centre | 57 |
| Figure 5.21: | 2026 Reference Case AM Peak RFC Plot – Wider Area | 57 |
| Figure 5.22: | 2026 Core Forecast AM Peak RFC Plot – Town Centre | 58 |
| Figure 5.23: | 2026 Core Forecast AM Peak RFC Plot – Wider Area | 58 |
| Figure 5.24: | 2007 Base Year PM Peak RFC Plot – Town Centre | 61 |
| Figure 5.25: | 2007 Base Year PM Peak RFC Plot – Wider Area | 61 |
| Figure 5.26: | 2026 Reference Case PM Peak RFC Plot – Town Centre | 62 |
| Figure 5.27: | 2026 Reference Case PM Peak RFC Plot – Wider Area | 62 |
| Figure 5.28: | 2026 Core Forecast PM Peak RFC Plot – Town Centre | 63 |
| Figure 5.29: | 2026 Core Forecast PM Peak RFC Plot – Wider Area | 63 |
| Figure 5.30: | Journey Time Routes | 65 |
| Figure 5.31: | AM Peak Journey Time - Route 1 - Southbound | 67 |
| Figure 5.32: | AM Peak Journey Time - Route 1 - Northbound | 68 |
| Figure 5.33: | AM Peak Journey Time - Route 2 - Eastbound | 69 |
| Figure 5.34: | AM Peak Journey Time - Route 2 - Westbound | 70 |
| Figure 5.35: | AM Peak Journey Time - Route 3 - Southbound | 71 |
| Figure 5.36: | AM Peak Journey Time - Route 3 - Northbound | 72 |
| Figure 5.37: | AM Peak Journey Time - Route 4 - Southbound | 73 |
| Figure 5.38: | AM Peak Journey Time - Route 4 - Northbound | 74 |
| Figure 5.39: | AM Peak Journey Time - Route 5 - Clockwise | 75 |
| Figure 5.40: | AM Peak Journey Time - Route 5 – Anti-Clockwise | 76 |
| Figure 5.41: | AM Peak Journey Time - Route 6 - Southbound | 77 |
| Figure 5.42: | AM Peak Journey Time - Route 6 – Northbound | 78 |
| Figure 5.43: | AM Peak Journey Time - Route 7 - Southbound | 79 |
| Figure 5.44: | AM Peak Journey Time - Route 7 – Northbound | 80 |
| Figure 5.45: | PM Peak Journey Time - Route 1 - Southbound | 82 |
| Figure 5.46: | PM Peak Journey Time - Route 1 - Northbound | 83 |
| Figure 5.47: | PM Peak Journey Time - Route 2 - Eastbound | 84 |

| | | |
|--------------|---|----|
| Figure 5.48: | PM Peak Journey Time - Route 2 - Westbound | 85 |
| Figure 5.49: | PM Peak Journey Time - Route 3 - Southbound | 86 |
| Figure 5.50: | PM Peak Journey Time - Route 3 - Northbound | 87 |
| Figure 5.51: | PM Peak Journey Time - Route 4 - Southbound | 88 |
| Figure 5.52: | PM Peak Journey Time - Route 4 - Northbound | 89 |
| Figure 5.53: | PM Peak Journey Time - Route 5 - Clockwise | 90 |
| Figure 5.54: | PM Peak Journey Time - Route 5 - Anti-Clockwise | 91 |
| Figure 5.55: | PM Peak Journey Time - Route 6 - Southbound | 92 |
| Figure 5.56: | PM Peak Journey Time - Route 6 - Northbound | 93 |
| Figure 5.57: | PM Peak Journey Time - Route 7 - Southbound | 94 |
| Figure 5.58: | PM Peak Journey Time - Route 7 - Northbound | 95 |

Executive Summary

WSP has produced a multi modal transport model of Bracknell Forest Borough (BFB) and wider related area (Bracknell Multi Modal Transport Model or BMMTM), on behalf of Bracknell Forest Council (BFC). The model, originally developed in 2009, has been updated to include more detailed coding of the Wokingham area in terms of highway network and zone structure. Separate assignment and demand models were developed; the assignment model has been developed and validated to a 2007 Base Year for AM (0800 – 0900) and PM (1700 – 1800) peak hours in terms of highway link flows and journey times and bus and rail passenger counts, and the demand model has been calibrated to fit as closely as possible to the known observed travel patterns in the 2007 Base Year.

The purpose of this modelling exercise is to provide an understanding of the future situation in the study area and examine the transport implications and potential infrastructure requirements of the proposed Local Development Framework (LDF) Core Strategy and Site Allocations DPD (SADPD) plans. 2026 Forecast models have been developed from the validated Base Year models, applying different assumptions of population, housing and employment levels and also highway and public transport infrastructure as part of the Core Strategy and SADPD proposals. Outputs from the Forecast demand model provides future year traffic matrices which have been assigned on the future year networks, the assessment of which provides an understanding of the potential impacts of the developments on the highway network in terms of links flows, ratio of flow to capacity, and journey times.

This report describes the forecasting methodology adopted in the development of the traffic models, and discusses the assessment of the '2026 Core Forecast' scenario in relation to the '2026 Reference Case' situation.

Key outcomes of the modelling assessment include:

- General growth in flow levels within Bracknell Forest Borough in 2026, AM and PM peaks
- Some re-routing of trips around the Town Centre following improvements at junctions such as Twin Bridges gyratory, and the new junctions on the A329(M)
- Some substantial increases in flows where new or improved junctions are introduced, e.g. Peacock Lane and Three Legged Cross junction
- Particular locations where links approach flow capacity in 2026, e.g. A329(M), Peacock Lane
- Specific key junctions where delays are increased, leading to increased journey times along key routes traversing the Bracknell highway network, e.g. Coral Reef, Golden Retriever
- Specific junctions that may require mitigation in order improve operation and reduce delays and improve journey times along key routes

The assessment highlights where flows are expected to increase / decrease as a result of the Core Strategy and SADPD proposals, and also provides an indication of which junctions are likely to require improvements to reduce delays and improve journey times in the future. The model provides a tool to help formulate and manage the LDF, assess cumulative and individual development impacts and therefore inform where future mitigation measures will be needed, and to assist in the development of future transport policy and infrastructure investment decisions.

1 Introduction

1.1 PROJECT BACKGROUND

1.1.1 In 2009 WSP produced a multi modal transport model of Bracknell Forest Borough (BFB) and wider related area (Bracknell Multi Modal Transport Model or BMMTM). The model was developed in VISUM and validated to a 2007 Base Year for AM (0800 – 0900) and PM (1700 – 1800) peak hours.

1.1.2 The model was developed to help the Council undertake a number of activities, namely:

- Provide a tool to help formulate and manage the Local Development Framework (LDF)
- Assess the cumulative impact of development in the Borough
- Assess the impact of adjacent authority developments on the Borough
- Allow the assessment of the transport impacts of individual development proposals, their required mitigation requirements and developer contributions
- Assess highway infrastructure schemes and public transport provision across the Borough
- Assist the development of transport policy, e.g. parking charges and public transport fares
- Help develop future Local Transport Plans (LTP) and other bids for funding from central government
- Assist in the formulation of a Community Infrastructure levy, if such a system is introduced by the Government
- Help provide information associated with cross-boundary and regional policy discussions
- Provide the basis for meeting the requirements of the Traffic Management Act 2004 in terms of identifying current and future congestion problems

1.1.3 This model was initially used to assess the transport implications and potential infrastructure requirements of the proposed LDF Core Strategy, in the 2016 and 2026 Forecast Years. The study examined the forecast traffic conditions and potential junction mitigation measures that would be required to improve the operation of the highway network across the Borough.

1.1.4 In 2011, WSP were commissioned to update the BMMTM to include more detailed highway network coding in the Wokingham area. This involved disaggregation of the existing zone structure and infilling of the highway network, in the Wokingham area of the model. The BMMTM has been revalidated to the same 2007 Base Year, using additional observed data collected across Wokingham to improve the level of accuracy in this area, and the model has been used to assess traffic conditions in a 2026 Forecast Year using updated planning assumptions.

1.2 REPORT PURPOSE & STRUCTURE

1.2.1 The purpose of this report is to provide an understanding of the potential future situation in the study area and examine the transport implications and potential infrastructure requirements of the proposed LDF Core Strategy and SADPD proposals, in comparison to a 'Reference Case' scenario. The key issues addressed in this document are:

- Future development schemes and phasing
- Future traffic growth forecasts
- Future highway infrastructure
- Future public transport provision
- Impacts on highway network in 2026

1.2.2 The note also describes the future year forecasting methodology to be adopted as part of the traffic model development and forecast scenario assessment and is organised in the following sections:

- Section 2 – Forecasting approach
- Section 3 – BFB development proposals
- Section 4 – 2026 Forecast
- Section 5 – Results
- Section 6 – Conclusion

2 Forecasting Approach

2.1 INTRODUCTION

2.1.1 This section sets out the general approach which has been adopted for the production of forecast traffic levels and impacts from the Bracknell multi-modal model.

2.1.2 The demand model is an absolute model applied incrementally, which has been developed in VISUM. The model forecasts trips from a 2007 Base Year model that has been calibrated to fit as closely as possible to the known observed travel patterns. Base Year and Forecast trip patterns are produced independently of each other, using common model parameters. The Forecast distribution is calculated as a pivot from the Base Year distribution, taking into account changes in generalised cost and zone attraction rates. The absolute model estimates of the Base and Forecast trip patterns are then used to apply changes to a Base observed matrix. A detailed description of the demand model can be found in the "Bracknell Multi Modal Transport Model: Base Model Development and Validation Report" (June 2011).

2.2 2007 OBSERVED BASE YEAR ASSIGNMENT MODEL

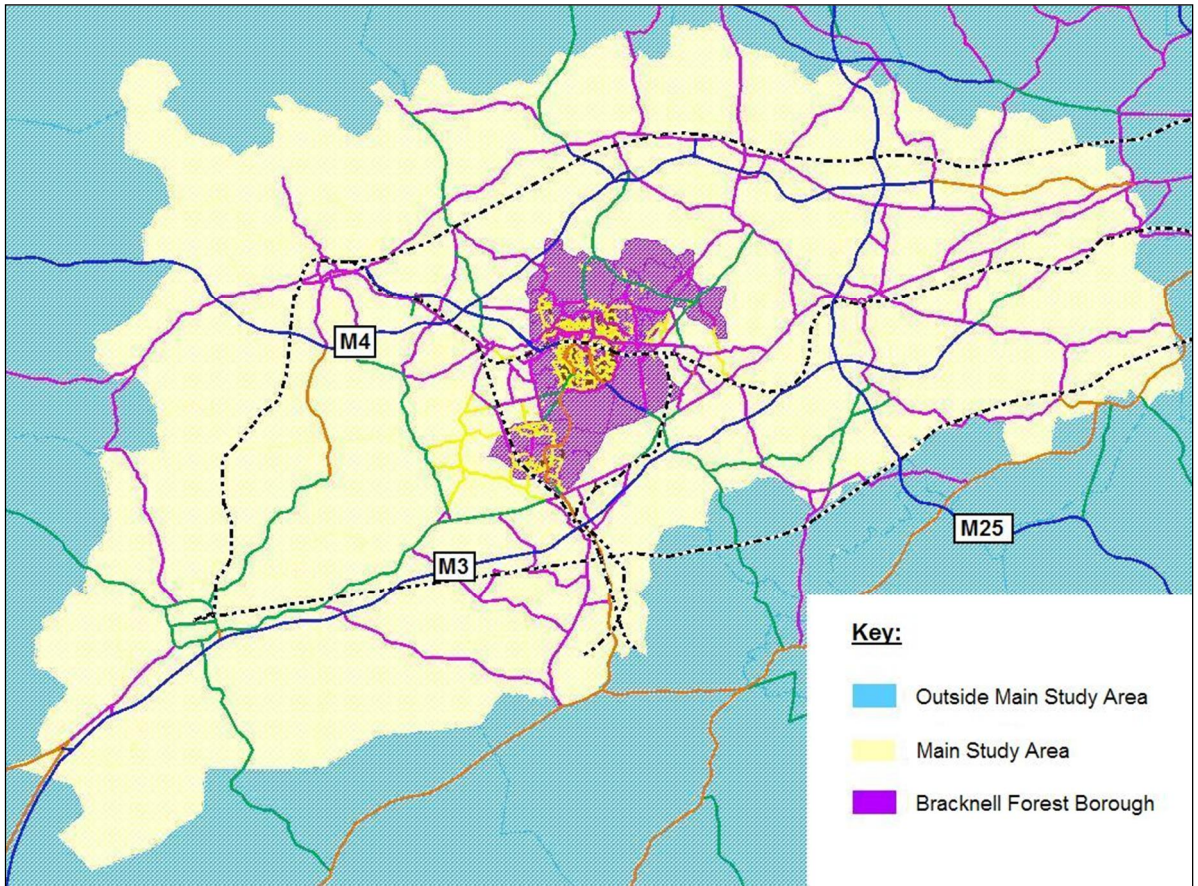
2.2.1 AM(0800 – 0900) and PM(1700 – 1800) peak hour observed assignment models have been developed for a 2007 Base Year. The models have been calibrated and validated to the current acceptability criteria as contained within DMRB volume 12.

2.2.2 Observed highway matrices have been developed using a combination of London and South East Travel Survey (LATS) data, Roadside Interview (RSI) data, and select link matrices taken from the South East Regional Transport Model (SERTM) SATURN model. Highway matrices for Car/LGV and HGV vehicle classifications were developed separately. Observed public transport matrices have been constructed from bespoke travel surveys for bus and rail travel for both peak hours modelled.

2.2.3 A plan of the modelled main study area is displayed in Figure 2.1. The main study area, encompassed by the outer blue boundary, extends from Reading to Basingstoke in the West to Heathrow and beyond in the east. As such it encompasses the major motorways of the M3 (junctions 7 to 1), M4 (junctions 12 to 1) and the M25 (junctions 11 to 15). The area also includes key strategic routes of the A329M and A329, A322, A30 and A4 and covers the residential, commercial and town centre development sites proposed in the Core Strategy of the LDF and the associated strategic re-routing of trips or potential modal transfer to public transport. Bracknell Forest itself covers the inner purple area. The detailed modelling area covers the administrative area of BFB within which junctions are modelled in much greater detail. This updated model also includes detailed network coding within the Wokingham area.

2.2.4 The road network includes all A and B roads and other strategic local roads and rat runs. Other unclassified local roads are also included to a high level of detail. In addition, details of cycle/walk networks were also included. The main local bus services in Bracknell and the rail services from and to Bracknell station have been included in the Bracknell model.

Figure 2.1: Bracknell VISUM Main Study Area Network Coverage



2.3 TRIP GENERATION

2.3.1 For each assessment year the travel demand is forecast by applying trip rates for different trip purposes to the underlying segmented population data. Population segmentation, which is shown in Table 2.1, has been created via the cross classification of census tables to produce a classification based on person type (age, employment status), household type (by car availability) and size.

Table 2.1: Population Segmentation

| Person type | Household type | | | | |
|--|------------------|-------------------|--------------------|--------------------|----------------------|
| | 1 adult 0 car | 1 adult 1+ car | 2+ adults 0 car | 2+ adults 1 car | 2+ adults 2+ cars |
| Children (0-15) | 1 | 2 | 3 | 4 | 5 |
| Adults (16-64) in full time emp – high SeC | 6 | 7 | 8 | 9 | 10 |
| Adults (16-64) in full time emp – low SeC | 11 | 12 | 13 | 14 | 15 |
| Adults (16-64) in part time emp – high SeC | 16 | 17 | 18 | 19 | 20 |
| Adults (16-64) in part time emp – low SeC | 21 | 22 | 23 | 24 | 25 |
| Adults (16-64) not employed | 26 | 27 | 28 | 29 | 30 |
| Pensioners (65+) | 31 | 32 | 33 | 34 | 35 |

NB. SeC = Socio economic Class

2.3.2 The population data is derived for each modelled Forecast Scenario. The starting point for the population data is the 2001 Census of Population since this provides a detailed profile of the resident and working population in the study area. The population data from the 2001 Census is scaled up based on TEMPRO v6.2 forecasts using both the growth in car availability and the growth in population.

2.3.3 The trip rates for different purposes have been derived from the National Travel Survey. The NTS is a rolling programme of surveys containing demographic and travel information for a sample of the population. Travel demand data from these surveys was used to derive the trip rates for the multi-modal version of the National Trip End Model (NTEM). The NTS enables the variations in travel behaviour due to trip purpose, car availability, person type, household size, economic status etc to be taken into account.

2.3.4 Trip and person data from the NTS have been used to determine the average number of home based trips per person per day for each population segment from the Census and the trip purposes being modelled. The 2001 disaggregated home based trip rates are shown in Table 2.2 for home-based work (HBW), employer's business (HBEb), education (HBEe), shopping (HBSH) and other (HBO). In general the trip rates are taken as fixed through time although scenario / sensitivity tests could be carried out with alternative trip rates.

Table 2.2: 2001 NTS Trip Rates

| Purpose | Car ownership | Children (0-15) | Adults (16-64) in full time emp (Low SEC) | Adults (16-64) in part time emp (Low SEC) | Adults (16-64) in full time emp (High SEC) | Adults (16-64) in part time emp (High SEC) | Adults (16-64) unemployed | Pensioners (65+) |
|---------|---------------------|-----------------|---|---|--|--|---------------------------|------------------|
| HBW | 1 adult / 0 car | 0.012473 | 0.79973 | 0.72670 | 0.79973 | 0.72670 | 0.03376 | 0.01309 |
| HBW | 2+ adults / 0 car | 0.018473 | 0.87612 | 0.70920 | 0.87612 | 0.70920 | 0.05039 | 0.06624 |
| HBW | 2+ adults / 1 car | 0.068723 | 0.88108 | 0.69064 | 0.88108 | 0.69064 | 0.06269 | 0.01834 |
| HBW | 1 adult / 1+ car | 0.032742 | 0.79246 | 0.56190 | 0.79246 | 0.56190 | 0.13033 | 0.05857 |
| HBW | 2+ adults / 2+ cars | 0.041647 | 0.80344 | 0.60535 | 0.80344 | 0.60535 | 0.14827 | 0.10152 |
| HBEb | 1 adult / 0 car | 0.005946 | 0.02599 | 0.03560 | 0.02599 | 0.03560 | 0.00633 | 0.00068 |
| HBEb | 2+ adults / 0 car | 0.002776 | 0.02847 | 0.02904 | 0.02847 | 0.02904 | 0.01165 | 0.01624 |
| HBEb | 2+ adults / 1 car | 0.005963 | 0.06436 | 0.04537 | 0.06436 | 0.04537 | 0.00181 | 0.00132 |
| HBEb | 1 adult / 1+ car | 0.008731 | 0.10168 | 0.08254 | 0.10168 | 0.08254 | 0.00851 | 0.00668 |
| HBEb | 2+ adults / 2+ cars | 0.007532 | 0.11665 | 0.06270 | 0.11665 | 0.06270 | 0.01630 | 0.04264 |
| HBEd | 1 adult / 0 car | 0.544162 | 0.02079 | 0.10157 | 0.02079 | 0.10157 | 0.23065 | 0.00179 |
| HBEd | 2+ adults / 0 car | 0.526321 | 0.01908 | 0.12311 | 0.01908 | 0.12311 | 0.24441 | 0.01314 |
| HBEd | 2+ adults / 1 car | 0.59938 | 0.04786 | 0.21059 | 0.04786 | 0.21059 | 0.19193 | 0.00707 |
| HBEd | 1 adult / 1+ car | 0.595634 | 0.02683 | 0.20317 | 0.02683 | 0.20317 | 0.25520 | 0.01492 |
| HBEd | 2+ adults / 2+ cars | 0.592687 | 0.04092 | 0.24129 | 0.04092 | 0.24129 | 0.34398 | 0.01269 |
| HBSH | 1 adult / 0 car | 0.47832 | 0.45335 | 0.67120 | 0.45335 | 0.67120 | 0.85064 | 0.65053 |
| HBSH | 2+ adults / 0 car | 0.40769 | 0.35285 | 0.57014 | 0.35285 | 0.57014 | 0.97669 | 0.95438 |
| HBSH | 2+ adults / 1 car | 0.47383 | 0.48618 | 0.67696 | 0.48618 | 0.67696 | 0.73686 | 0.66480 |
| HBSH | 1 adult / 1+ car | 0.45566 | 0.50934 | 0.77249 | 0.50934 | 0.77249 | 0.79450 | 0.82962 |
| HBSH | 2+ adults / 2+ cars | 0.48789 | 0.47238 | 0.76012 | 0.47238 | 0.76012 | 0.79718 | 0.74010 |
| HBO | 1 adult / 0 car | 0.50703 | 0.58413 | 0.56545 | 0.58413 | 0.56545 | 0.71172 | 0.42236 |
| HBO | 2+ adults / 0 car | 0.44357 | 0.41628 | 0.43149 | 0.41628 | 0.43149 | 0.96441 | 0.83634 |
| HBO | 2+ adults / 1 car | 0.55283 | 0.60874 | 0.61103 | 0.60874 | 0.61103 | 0.51420 | 0.33503 |
| HBO | 1 adult / 1+ car | 0.62428 | 0.84096 | 0.85608 | 0.84096 | 0.85608 | 0.69167 | 0.57007 |
| HBO | 2+ adults / 2+ cars | 0.63004 | 0.66763 | 0.72872 | 0.66763 | 0.72872 | 0.83622 | 0.64848 |

Notes:

- 1 - HBO is a combination of HBREc, Visfriend and Holiday
- 2 - 1 adult / 1+car = 1ad 1 car
- 3 - 2+ adults / 2+ cars = 2ad 2car
- 4 - low and high SEC are assumed the same for trip-making

2.3.5 Non home based trips are by definition trips from workplaces or trip chains where one trip follows on from another, a reasonable estimate of non-home based trips starting in an area is to apply a trip rate to the number of home based trips arriving in the area. This is very close to the approach adopted in NTEM, which followed the same concept but for trips by mode as well as purpose. The 2001 non home based trip rates are shown in Table 2.3, they were calculated as a linear combination of home based trip production factors.

Table 2.3: 2001 Non Home Based Trip Rates (Secondary Ratio to HB)

| Purpose | HBW | HBEb | HBEd | HBPB/Shop | HBREc/Hol |
|---------|---------|---------|---------|-----------|-----------|
| NHBEB | 0.07890 | 0.59930 | 0.00244 | 0.00409 | 0.00604 |
| NHBO | 0.17558 | 0.77502 | 0.15193 | 0.25040 | 0.32569 |

2.4 TRIP ATTRACTION

2.4.1 A number of different variables have been used to define the attraction weights for trips of different purposes to the Bracknell Forest internal transport zones and these are summarised in Table 2.4.

Table 2.4: Trip Attraction Variables

| Purpose Segmentation | Attraction Source |
|--|--|
| 1. Home-based work (commuting) | NTEM trip rates and employees |
| 2. Home-based employer's business | Employees |
| 3. Home-based education | Number of school places |
| 4. Home-based shopping / personal business | Rateable value for retail/leisure (4 and 5), number of households (6), leisure (7) |
| 5. Home-based recreation | |
| 6. Home-based visiting friends & relatives | |
| 7. Holiday / day trips | |
| 8. Non home-based employer's business | Employees |
| 9. Non home-based other | Rateable value |

2.4.2 The attraction weights are to reflect the differences in physical size of competing areas that may have similar travel costs. Two shopping centres a similar distance, cost and time from a zone but one of which is five times larger than the other would not be expected to attract the same number of trips. The larger centre would attract proportionally more trips than the smaller one. The attraction weights are input to provide this differential and are used in combination with the generalised times of travel in the trip distribution model.

2.4.3 The datasets used to derive the trip attraction rates are:

- Number of employees at the workplace in the zone
- Number of households in a zone
- Number of school/college pupils in a zone
- Rateable value for retail in a zone

2.4.4 The number of school pupils in a zone was derived both directly from BFC and the EduBase database. EduBase is a register of all educational establishments in England and Wales, maintained by the Department for Children, Schools and Families. It allows both the general public and government officials to access up to date information. To ensure accuracy, the information on the site is provided by a range of suppliers, from the establishments themselves to Local Education Authorities and specialist agencies.

2.4.5 The rateable value of retail in a zone was obtained from the Valuation Office Agency (VOA). VOA data provides the following information for a zone:

- Retail floor area
- Factories
- Office
- Warehouse
- Bulk

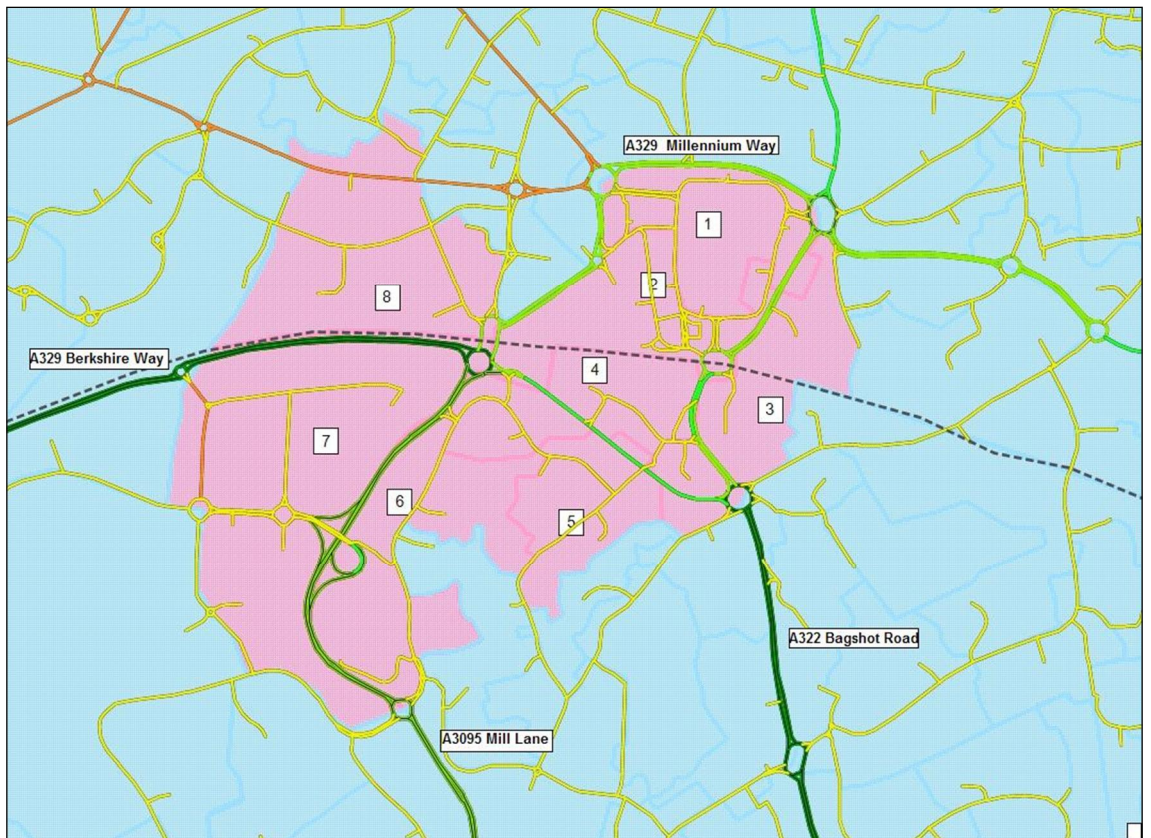
- Non bulk

2.4.6 The retail floor area data was used as an attractiveness weight based on a per ward basis pro rated across the BMMTM zone structure based on the 2001 work place population data. Thus a typical input for a number of zones is as shown in Table 2.5 which depending on the purpose was either used as a trip end (as in a doubly constrained purpose) or as normalised to one and input as weights (for singly constrained purposes). These example zones are illustrated in Figure 2.2.

Table 2.5: Trip Attraction Input to BMMTM

| Zone | HB | | | | Zone |
|------|-----------------------------|---------------------|-------------------------|-------------------------|------|
| | Purpose 1&2 WorkPlacePop | Purpose 5 Hholds | Purpose 4 RetailAttr | Purpose 3 EducWeight | |
| 1 | 5682 | 121 | 34280 | 60 | 1 |
| 2 | 3073 | 56 | 18536 | 0 | 2 |
| 3 | 433 | 275 | 2612 | 150 | 3 |
| 4 | 896 | 283 | 5405 | 60 | 4 |
| 5 | 135 | 384 | 814 | 30 | 5 |
| 6 | 109 | 388 | 657 | 0 | 6 |
| 7 | 6063 | 126 | 340 | 0 | 7 |
| 8 | 4794 | 140 | 0 | 0 | 8 |

Figure 2.2: Bracknell VISUM Zones 1 to 8



2.5 OTHER INPUT VARIABLES

2.5.1 Other elements of demand input data, relevant to the modelled year, include Value of Time (VOT), Vehicle Operating Costs (VOC - fuel resource cost element), car parking charges and public transport fares.

2.5.2 These variables are discussed, in terms of Base Year levels, in the “Bracknell Multi Modal Transport Model: Base Model Development and Validation Report” (June 2011). Forecast levels, relative to the Base Year, are presented in Section 2.6.

2.6 FUTURE TRIP MATRICES

2.6.1 The preliminary forecast is intended to provide input to the evaluation process in advance of the completion of the full demand model. The approach requires the completion of the calibration (and validation) of the Base Year 2007 matrices to which TEMPRO forecasts of growth can be applied across the main study area. The forecasts are spatially disaggregated based on the policy areas within TEMPRO and achieve growth factors as shown in Table 3.1.

2.6.2 In addition to the TEMPRO forecasts, the growth in population for BFB zones has been calculated by applying the known developments (committed and proposed) to the relevant zones, and the remaining level of background growth is spread across remaining BFB zones so that the overall growth within Bracknell is in line with TEMPRO forecasts.

2.6.3 The robust forecast will be provided from a full run of the demand model which has been constructed to allow for behavioural changes in population and employment structure to be factored through time and be applied to BFB zones. External to the detailed modelling area (BFB) growth rates will be derived from TEMPRO and will thus have already been developed from stage 1. Other demand input variables have been factored to the relevant Forecast Scenario from Base Year values and are presented below in Table 2.6 to Table 2.10.

2.6.4 The forecasts in this stage are developed from the input of population, employment and education figures into the trip generation stage of the calibrated demand model. These will generate new levels of trip production, mode split and distribution from the subsequent model stages.

Table 2.6: Fuel Resource Costs

| Fuel Type | Pence per litre | Change from BY |
|-----------|-----------------|----------------|
| | 2007 | 2026 |
| Petrol | 27.7 | 4.3% |
| Diesel | 29.5 | 4.4% |

2.6.5 The above fuel resource costs were derived from growth factors applied to actual 2007 values which were taken from WebTAG unit 3.5.6 (as at April 2010). There is a slight increase in the resource cost from 2007 to 2026, which may encourage a level of mode shift from car onto public transport or slow modes.

Table 2.7: Values of Time by Journey Purpose

| Journey Purpose | Value of Time (£) | Change from BY |
|--|-------------------|----------------|
| | 2007 | 2026 |
| Home-Based Work, High SeC | 6.84 | 33.0% |
| Home-Based Work, Low SeC | 4.25 | |
| Home-Based Employer's Business, High SeC | 59.05 | 42.8% |
| Home-Based Employer's Business, Low SeC | 27.99 | |
| Home-Based Education/Shopping/Other | 4.94 | 33.0% |

NB. SeC = Socio-economic Class

Table 2.8: Parking Charges

| Duration | Car Parking Charges (£) | Change from BY |
|------------|-------------------------|----------------|
| | 2007 | 2026 |
| Short-term | 8.00 | 51.5% |
| Long-term | 3.00 | |

Table 2.9: Public Transport Fares – Rail

| Distance (km) | Rail Fare (£) | Change from BY |
|---------------|---------------|----------------|
| | 2007 | 2026 |
| < 5 | 0.75 | 24.0% |
| < 10 | 1.50 | |
| < 15 | 2.25 | |
| < 20 | 3.00 | |
| < 25 | 4.00 | |
| < 30 | 5.00 | |
| < 35 | 6.00 | |
| < 40 | 7.00 | |
| < 45 | 8.00 | |
| < 50 | 9.00 | |
| < 55 | 10.00 | |
| < 60 | 11.00 | |
| < 65 | 12.00 | |
| < 70 | 12.50 | |
| > 70 | 15.00 | |

Table 2.10: Public Transport Fares – Bus

| Distance (km) | Bus Fare (£) | Change from BY |
|---------------|--------------|----------------|
| | 2007 | 2026 |
| < 15 | 1.35 | 43.0% |
| < 17 | 2.25 | |
| < 24 | 2.75 | |
| > 24 | 10.00 | |

2.7 DEVELOPMENT TRIP GENERATION

2.7.1 Forecast trip generation will be derived in the same way as for the Base Year, applying NTS trip rates to the forecast population levels which have been calculated from BFB projections and TEMPRO as described in Section 2.6.

2.8 DEVELOPMENT TRIP DISTRIBUTION

2.8.1 Development traffic trip distribution is dealt with in the BMMTM via the application of a pivot model to the Base Year distribution as described in the Base Model Development and Validation Report. Forecast changes in attraction rates and costs of travel between zones are applied to the Base Year distribution for each origin and journey purpose using the pivot model, providing a realistic/reliable estimate of forecast trip distribution.

2.8.2 The models are 'absolute' in that they forecast the number of trips generated or attracted to a zone, or travelling between zones. However, they are applied 'incrementally', meaning absolute changes in forecasts arising between the Base Year and a Forecast Scenario are applied to the observed Base (validated) trip matrices to give the final Forecast results. This approach retains the level of detail that is captured by the observations but which is not replicated by the inevitable simplifications used in the modelling when applied directly. The incremental approach is less suitable when conditions in the Forecast Scenario for a zone are very different from those in the Base Year, for example, when extensive development occurs on a 'green field' site. In these instances, the model uses absolute values for its forecasts.

2.8.3 In summary, the Forecast model can be described as an absolute model applied incrementally. The forecasting process thus incorporates the following stages:

- Update trip generation inputs for
 - Population
 - Employment
 - Education
- re-estimate trip generation
- skim highway networks with TEMPRO-growthed assignment to calculate costs of travel between zones
- re-estimate modal shift (by composite costs)
- aggregate demand strata
- trip distribution (by pivot model)
- re-skim highway networks with robust assignment to recalculate costs of travel between zones
- re-estimate modal shift and trip distribution for final output

2.9 FUTURE HIGHWAY NETWORKS

2.9.1 A number of proposed highway improvements that are identified in the LTP have been implemented in the 2026 Reference Case model, where they are considered 'committed'. Additional proposed highway improvements, that are associated with specific non-committed development, are included in the 2026 Core Forecast model for assessment against the Reference Case. These are summarised in Table 4.7 and Table 4.8.

2.10 TRAFFIC ASSIGNMENT

2.10.1 Once a Forecast demand model has been run and a synthetic Car matrix produced, the absolute difference between the Forecast and Base Year synthetic matrices is extracted and added to the validated Base matrix to form the Forecast Car assignment matrix.

2.10.2 The same process is applied to public transport in that the synthetic matrix, which are separated into bus and rail according to observed movements, are compared against the Base Year synthetic matrices and the difference added to the observed bus and rail trips to provide Forecast Bus and Rail assignment matrices.

2.10.3 Whilst the demand model does not cover heavy goods movements, we must include them in the final assignment in order to assess the impact of full traffic demand on the network. The Forecast HGV assignment matrix is derived from the validated Base Year HGV matrix, applying growth rates obtained from NTS projections in line with the Forecast Year.

2.10.4 These final Car, HGV, Bus and Rail matrices are then assigned to the Forecast Year network to assess the impact of the proposed traffic movements on various aspects as described in Section 5.

3 BFB Development Proposals

3.1 DEVELOPMENT PLAN FRAMEWORK

3.1.1 The following assessment years were agreed within the project team:

- 2007 Base Year
- 2026 in line with the end of the current plan period

3.1.2 Two forecast year scenarios have been assessed in 2026, comprising different levels of development and infrastructure:

- 2026 Reference Case
- 2026 Core Forecast

3.1.3 The Development Plan¹ contains planning policies and proposal maps for the Borough area. The LTP and the Development Plan set out the Council's requirements for land use and the expected arrangements for transport until 2016 to facilitate this land use. It also provides the Council with a policy framework for making decisions on planning applications. The Council's Core Strategy DPD sets the vision and policies for the Borough over the next 20 years including its housing allocation to 2026.

3.1.4 This report details the methodology used in identifying the Core Strategy land use forecast and SADPD proposals for the Council for the models' Forecast Year of 2026, applied in the '2026 Core Forecast' model scenario. It also details the methodology applied in deriving the land forecast for the '2026 Reference Case' model scenario. The methodology utilises TEMPRO growth projections for 2026 for areas outside Bracknell Forest Borough and supplements this with information provided by the Council and development proposals contained in the statutory documents prepared by and for the Council within the Borough.

3.1.5 Information on historical population and household levels, with growth predictions from TEMPRO dataset 6.2, are summarised in Table 3.1.

Table 3.1: Population and Household Projections for the Bracknell Forest Area

| | Population | | Dwellings | |
|-------------------------------|------------|----------------------|-----------|----------------------|
| | Total | % change (from 2001) | Total | % change (from 2001) |
| 1991 Census | 95,963 | - | - | - |
| 2001 Census | 109,631 | 14.2* | 44,482 | - |
| 2007 Projection (from TEMPRO) | 112,713 | 2.8 | 46,070 | 3.6 |
| 2026 Projection (from TEMPRO) | 125,942 | 14.9 | 52,231 | 17.4 |

* % change from previous census

3.1.6 From the table it can be calculated that the population increase between censuses was approximately 1.3% per annum.

¹ Comprising the Regional Spatial Strategy (RSS), the Core Strategy Development Plan Document (DPD), and saved policies in the Bracknell Forest Borough Local Plan and the Minerals and Waste Local Plans.

3.1.7 The predicted growth from TEMPRO in the period post 2001 indicates a slower rate of growth with population at 112,713 in 2007, rising to 125,942 by 2026, which equates to an average annual growth rate of 0.06%.

3.1.8 In terms of households BFC predicts a continuing decline in dwelling size from 2.46 members per dwelling in 2001 to 2.21 by 2026. As a result the scale of household growth will exceed the population growth in the Borough.

3.2 ZONING SYSTEM

3.2.1 The zoning system developed for Bracknell Forest Borough is aligned to census output areas within BFB and at ward or aggregated ward level in the wider study area. The original model contained 203 zones, 11 of which covered the Wokingham area. The model update, which includes greater level of detail in Wokingham, has 342 zones in total which comprise 29 zones external to the main study area and 313 zones within the main study area covering some 303 wards. The BFB area comprises 121 of the 313 zones, whilst Wokingham is now represented by 150 zones.

3.3 INPUTS TO THE LAND USE MODEL

3.3.1 The demand model developed as part of the BMMTM has three main inputs to the land use assessment being:

- Total Population
- Employment Places
- Educational Places

3.3.2 The 2007 Base model utilised population, employment and educational data obtained from the 2001 census. The 2026 forecast data for the BFB area is based on information on known developments supplied by the Council, and TEMPRO growth forecasts for the remaining areas. Known development information has also been incorporated for the Wokingham area.

3.3.3 Growth external to the BFB area has utilised adjusted TEMPRO growth rates.

3.4 DEVELOPMENT AREAS

3.4.1 The Council has allocated land for development in the Site Allocations DPD in accordance with Policy CS2 of the Core Strategy DPD in the sequence as identified below:

1. Bracknell Town Centre
2. Previously developed land and buildings in defined settlements
3. Other land within defined settlements where this does not conflict with other policies
4. Extensions to defined settlements with good public transport links to the rest of the urban area or with firm proposals to provide such links

3.4.2 The Site Allocations DPD has identified four broad areas for development as follows:

- Amen Corner North
- Blue Mountain

-
- TRL
 - Broadmoor

3.4.3 In line with the Core Strategy and Site Allocations DPD, development will also be permitted generally within defined settlements. All new development needs to be consistent with for example, the character, accessibility and provision of infrastructure and services.

4 2026 Forecast

4.1 INTRODUCTION

4.1.1 The '2026 Core Forecast' scenario is generated for Bracknell Forest Council in terms of the population, household and education growth and takes the Core Strategy development proposals from the LTP, as well as proposed development such as the Site Allocations Broad Areas (see 3.4.2). This scenario also includes the adopted Core Strategy proposals for the Wokingham area.

4.1.2 The '2026 Reference Case' scenario has been produced by removal of any non-committed developments or infrastructure from the Core Forecast. The growth in housing and population, generated by these developments, is spread evenly across the Borough to achieve the same overall levels between the two 2026 Forecast Scenarios. This method has been applied to both Bracknell and Wokingham Borough zones.

4.1.3 The '2026 Core Forecast' scenario is assessed in comparison to the '2026 Reference Case' in the AM and PM peaks, the results of which are discussed in Section 5.

4.2 POPULATION FORECAST

4.2.1 The 2007 Base Year population figures, for each zone, were derived from 2001 Census data, growthed by TEMRPO forecasts. For the 2026 Forecast Year population figures, TEMPRO growth (dataset 6.2) was applied to the 2007 Base Year population outside of Bracknell Forest Borough. Within BFB, TEMPRO growth was also used to derive the overall population in the Borough in 2026, however details of population splits across wards was provided by the Council and this data was used to control the allocation of 'remaining' growth, i.e. the difference between known development and TEMPRO forecast levels, across the Borough.

4.2.2 Bracknell Forest Borough population levels are shown, for 2007 and 2026, in Table 4.1.

Table 4.1: Population Projections for Bracknell Forest Borough

| | Total |
|---------------|--------------|
| 2007 Base | 112,713 |
| 2026 Forecast | 125,942 |

4.2.3 The population growth has been distributed to a number of different zones from the sources shown in Table 4.2. Where no specific site has been provided, growth is distributed across remaining zones within Bracknell Forest Borough. This table also indicates which developments are removed in the 2026 Reference Case scenario.

Table 4.2: Bracknell Residential Development Proposals (phasing may change)

| No | Name | Description (no. of dwellings proposed) | Model Zone |
|--------------------|--|---|---------------------------|
| 2007 – 2016 | | | |
| 1 | Completions 2007-2010: | 558 | |
| | <i>Braeside, Binfield</i> | 2 | 47 |
| | <i>Met Office (Celsius)</i> | 268 | 13 |
| | <i>Wykery Copse</i> | 57 | 49 |
| | <i>Warfield Park</i> | 5 | 284 |
| | <i>78-84 Waterloo Road, Crowthorne</i> | 17 | 112 |
| | <i>Ossington, Casares & St Chad, Pollardrow Avenue</i> | 24 | 44 |
| | <i>Strata (formerly FSS House), Mount Lane</i> | 68 | 250 |
| | <i>Broom Lodge, London Road</i> | 7 | 45 |
| | <i>Hawthorn Cottage and Wickfield, Warfield Road</i> | 14 | 125 |
| | <i>Aston Grange, Ralphs Ride</i> | 26 | 16 |
| | <i>Alpha House / Land at Cardoss, 79 High Street, Crowthorne</i> | 14 | 111 |
| | <i>Small sites completions*</i> | 56 | - |
| 2 | Peacock Farm | 1,500 | 49 |
| 3 | Staff College | 699 | 16 / 287 |
| 4 | Town Centre | 150 | 1 / 2 |
| 5 | Amen Corner (Policy CS4)** | 525 | 283 |
| 6 | Land North of Whitegrove and Quelm Park (Policy CS5)** | 400 | 75 / 77 |
| 7 | Small Sites Allowance* | 266 | - |
| 8 | Other Sites with permission* | 307 | - |
| 9 | SADPD Preferred Option Edge of Settlement Sites: | 462 | |
| | <i>Land at Garth Hill School, Sandy Lane**</i> | 100 | 11 |
| | <i>Amen Corner North (two sites: Murrell Hill and Foxley Lane)**</i> | 98 | 81 / 283 |
| | <i>Land north of Eastern Road, Bracknell**</i> | - | - |
| | <i>Others sites</i> | 264 | 3 / 4 / 47 and Background |
| 10 | SADPD Broad Areas**: | 545 | |
| | <i>Amen Corner North</i> | - | - |
| | <i>Blue Mountain</i> | 100 | 79 |
| | <i>TRL</i> | 275 | 84 |
| | <i>Broadmoor</i> | 170 | 111 |

| No | Name | Description (no. of dwellings proposed) | Model Zone |
|----------------------------|--|---|---------------------------|
| 2016 – 2026 | | | |
| 4 | Town Centre | 900 | 1 / 2 |
| 5 | Amen Corner (Policy CS4)** | 200 | 283 |
| 6 | Land North of Whitegrove and Quelm Park (Policy CS5)** | 1,800 | 75 / 77 |
| 7 | Small Sites Allowance* | 300 | |
| 9 | SADPD Preferred Option Edge of Settlement Sites: | 493 | |
| | <i>Land at Garth Hill School, Sandy Lane**</i> | - | - |
| | <i>Amen Corner North (two sites: Murrell Hill and Foxley Lane)**</i> | - | - |
| | <i>Land north of Eastern Road, Bracknell**</i> | 216 | 14 |
| | <i>Others sites</i> | 277 | 3 / 4 / 47 and Background |
| 10 | SADPD Broad Areas**: | 1,735 | |
| | <i>Amen Corner North</i> | 400 | 283 |
| | <i>Blue Mountain</i> | 300 | 79 |
| | <i>TRL</i> | 725 | 84 |
| | <i>Broadmoor</i> | 310 | 111 |
| Total (2007 – 2026) | | 10,840 | |

* included as background growth

** not included in 2026 Reference Case

4.2.4 A similar growing methodology has been applied to the Wokingham Borough zones. Known developments, committed and proposed, have been included in the relevant zones and remaining growth is spread evenly across the rest of the Wokingham Borough zones, so that the target TEMPRO growth for 2026 is achieved across the Borough. Committed developments are divided into 'hard' and 'soft' commitments, whilst proposed developments include Strategic Development Locations (SDLs) and Wokingham Town Centre developments.

4.2.5 The breakdown of Wokingham Borough developments is shown in Table 4.3. All Wokingham developments are included in both 2026 Forecast scenarios.

Table 4.3: Wokingham Residential Development Proposals (to 2026)

| Ref | Name | Description (no. of dwellings proposed) | Model Zone |
|----------------------------|--|---|-------------|
| Hard Commitments | | | |
| H36 | Land at Sandford Farm, Woodley | 492 | 1132 |
| H37 | Land at the junction of Ashville Way and Molly Millars Lane, Wokingham | 230 | 1050 |
| H38 | Land at Wokingham Cricket Club, Wellington Road, Wokingham | 124 | 1013 |
| H39 | Plough Lane | 150 | 1005 |
| H40 | Grazeley Road | 272 | 1105 |
| H67 | Bridge House Nursing Home | 147 | 1128 |
| Soft Commitments | | | |
| S19 | Land at Hatch Farm Dairies, Winnersh | 400 | 1142 |
| SDLs | | | |
| S39 | Kentwood East, North Wokingham | 357 | 1004 |
| S40 | Kentwood West, North Wokingham | 153 | 1003 |
| S41 | Mathews Green, North Wokingham | 810 | 1041 |
| S42 | Plough Farm, North Wokingham | 30 | 1005 |
| S43 | Buckhurst Park North of Railway, South Wokingham | 660 | 1021 |
| S44 | Masterplan SDP Area B South of the Railway, South Wokingham | 870 | 1026 / 1029 |
| S45 | Masterplan SDP Area C South of the Railway, South Wokingham | 830 | 1021 |
| S46 | Masterplan SDP Area D South of the Railway, Wokingham | 140 | 1017 |
| S47 | Masterplan SPD Area C, South of M4 | 750 | 1101 |
| S48 | Masterplan SPD Area A, south of M4 | 270 | 1105 |
| S49 | Masterplan SPD Area B, South of M4 | 400 | 1104 |
| S50 | Masterplan SPD Area D, South of M4 | 375 | 1100 |
| S51 | Spencers Wood Basingstoke Road, South of M4 | 100 | 1104 |
| S52 | Spencers Wood- Hyde End Road, South of M4 | 333 | 1104 |
| S53 | Masterplan SPD Area A, Arborfield | 950 | 1080 |
| S54 | Masterplan SPD Area B, Arborfield | 300 | 1074 |
| S55 | Masterplan SPD Area C, Arborfield | 750 | 1074 |
| S56 | Masterplan SPD Area D, Arborfield | 1,500 | 1074 |
| S57 | Wokingham Town Centre | 193 | 1010 |
| C.1-8 | Elms Field | 191 | 1012 |
| Total (2007 – 2026) | | 11,777 | |

4.3 EMPLOYMENT FORECAST

4.3.1 Projections of the economically active population (employment figures) were provided by BFC based on a function of overall household numbers. Projections indicate a falling level of economically active persons per household from 1.4 persons in 2001 to 1.3 persons by 2026². The projections thus indicate that the 2001 figure of 62,275 persons will rise to 74,230 (19.2%) by 2026.

4.3.2 Since the 2007 Base levels of employment are based on 2001 Census data growthed using TEMPRO, the same methodology has been applied to produce the 2026 forecasts of workplace population. Where specific numbers of jobs have been provided by BFC for the developments listed in Table 4.4 (including Pine Wood development in Wokingham), these have been applied directly to the relevant model zones and adjusted TEMPRO growth is applied to the remaining zones within BFB. Outside of the BFB area, workplace population is based on TEMPRO growth. This table also indicates which developments are removed in the 2026 Reference Case scenario.

4.3.3 Known developments in the Wokingham Borough have also been included in the relevant zones, as per Table 4.5. All Wokingham developments are included in both 2026 Forecast scenarios.

Table 4.4: Bracknell Employment Developments (by 2026)

| Name | Description | Size |
|-----------------------|--------------------------|---------------------------|
| Town Centre | Mixed | see Table 4.6 |
| Amen Corner** | Office | 40,000m ² |
| Pine Wood (Wokingham) | Office | 631 jobs |
| SADPD Broad Areas**: | | |
| <i>Broadmoor</i> | <i>Medipark</i> | <i>3,400m²</i> |
| <i>TRL</i> | <i>Enterprise Centre</i> | <i>1,500m²</i> |

** not included in 2026 Reference Case

Table 4.5: Wokingham Employment Developments (by 2026)

| Name | Description | Size |
|---|-------------|-----------------------|
| Land at Winnersh Triangle | Office | 35,790 m ² |
| 600 Thames Valley Park Drive | Office | 6,503 m ² |
| Land adjacent to Earley Gate, Whiteknights | Office | 5,535 m ² |
| Microsoft Building 6, Thames Valley Park Drive | Office | 4,590 m ² |
| Land to the north of Cutbush Lane, Shinfield (Science park) | Office | 18,580 m ² |
| Land at Winnersh Triangle | Office | 35,790 m ² |

4.3.4 The closures of Emmbrook School and Ryeish Green School are also incorporated in the 2026 forecast assumptions for the Wokingham area.

² The Council projection assumes that the average of economically active people per dwelling in 2001 will drop evenly by 0.02 every 5 years to 2026

4.4 TOWN CENTRE REDEVELOPMENT

4.4.1 A major aspect of the development intended for the BFB area involves the redevelopment of the town centre. The current proposals based on available information for the amount of existing development which is to be demolished, retained or is new gross development (by 2026) is contained within Table 4.6.

Table 4.6: Town Centre Redevelopment Proposals

| Land Use | Retained (a) (sqm) | Demolished (sqm) | Replacement (d) (sqm) | New Development | | Masterplan Total |
|---------------------------------|-----------------------|---------------------|-----------------------------|---------------------------|-------------------------------------|---------------------|
| | | | | Gross dev (b) (sqm) | Net addition (b - d) (sqm) | (a + b) (sqm) |
| Comparison Retail (A1) | 33,048 | 16,272 | 12,204 | 49,651 | 37,447 | 82,699 |
| Leisure Services (A2 and A3) | 11,222 | 7,855 | 5,891 | 16,910 | 11,019 | 28,132 |
| Business | 63,420 | 43,526 | 43,526 | 86,950 | 43,424 | 150,370 |
| Residential | 0 | 9,000 | 9,000 | 32,000 | 23,000 | 32,000 |
| Health Centre | 0 | 1,829 | 1,829 | 4,163 | 2,334 | 4,163 |
| Civic/Community | 0 | 2,357 | 2,300 | 8,000 | 5,700 | 8,000 |
| College | 0 | | 0 | 0 | 0 | 0 |
| British Legion | 0 | 800 | 800 | 1,500 | 700 | 1,500 |
| Langley Hall | 0 | 200 | 200 | 300 | 100 | 300 |
| Indoor Market Building | 0 | 2,064 | 0 | 600 | 600 | 600 |
| Other Uses (Police, Courts etc) | 0 | 4,144 | 0 | 0 | 0 | 0 |
| Convenience retail | 3,400 | 1,950 | 1,462 | 4,000 | 2,538 | 7,400 |
| Hotel | 7,000 | 0 | 0 | 9,200 | 9,200 | 16,200 |
| | | | | | | |
| Total | 118,090 | 89,997 | 77,212 | 213,274 | 136,062 | 331,364 |

4.4.2 The proposals indicate that an additional 136,000 square metres of development will be added to the town centre in the period to 2026 generating substantial additional trips and potentially attracting retail trips back to Bracknell from the surrounding centres (Reading and Basingstoke).

4.5 CORE FUTURE TRANSPORT INFRASTRUCTURE

4.5.1 A number of potential transport improvements are planned within the study area. These schemes have been identified from a collation of information from the following sources:

- BFC LTP
- BFC LDF
- Other Berkshire Unitary Authorities and nearby authorities LTP's

4.5.2 Those schemes identified in the LTP that are considered 'committed' are included in the '2026 Reference Case' model. Other schemes that are not committed, have been included in the '2026 Core Forecast' for assessment against the Reference Case. These include highway access and junction proposals associated with such developments as Amen Corner, White Grove / Quelm Park and the SADPD Broad Areas.

Table 4.7 details the infrastructure schemes that are included in the two 2026 Forecast Scenario models within Bracknell Forest Borough.

4.5.3 A similar list is provided for Wokingham Borough schemes in Table 4.8. All Wokingham infrastructure schemes are included in both 2026 Forecast Scenarios.

Table 4.7: Bracknell Forest Borough Highway Improvement Schemes

| Location | Proposed Changes | 2026 Ref Case | 2026 Core Forecast |
|---------------------------------------|---|---------------|--------------------|
| Town Centre | Redevelopment | ✓ | ✓ |
| Coppid Beech roundabout | Widening and signalisation | ✗ | ✓ |
| Amen Corner | New link road | ✗ | ✓ |
| John Nike Way / London Road junction* | Redesign and signalisation | ✓ | ✓ |
| Shoulder of Mutton junction | Linking of signals | ✓ | ✓ |
| Beehive Road / Cain Road junction | Redesign and signalisation | ✗ | ✓ |
| Peacock Farm / Jennetts Park* | Two new roundabouts linking A329 Berkshire Way with Peacock Lane | ✓ | ✓ |
| Doncastle Roundabout | Widening and signalisation | ✗ | ✓ |
| Twin Bridges gyratory | Redesign | ✓ | ✓ |
| Horse and Groom roundabout | Widening and signalisation | ✓ | ✓ |
| Leisure Centre roundabout* | Lane alterations | ✓ | ✓ |
| Swinley Bottom gyratory | Widening and signalisation | ✗ | ✓ |
| Three Legged Cross junction | Redesign with new 40mph link road: give-way junction with priority on link road/Maidenhead Road; new arm joining roundabout on Harvest Ride | ✗ | ✓ |
| Plough and Harrow junction | Signalisation | ✓ | ✓ |
| Baldocks roundabout | Lane alterations | ✗ | ✓ |
| Hanworth roundabout | Widening | ✓ | ✓ |
| Wildridings roundabout | Widening and partial signalisation | ✓ | ✓ |

* already completed between 2007 and 2010

Table 4.8: Wokingham Borough Highway Improvement Schemes

| Location | Proposed Changes |
|---|--|
| M4 Junction 11 | Interim junction improvements already in place |
| Plough Lane roundabout | New junction on Binfield Road accessing development |
| Northern Distributor Road | New link road to the north of Wokingham Town Centre, with accesses to new developments |
| Southern Distributor Road | New link road to the south of Wokingham Town Centre, with accesses to new developments |
| Finchampstead Road / Tesco roundabout | Junction redesign, forming connecting to SDR |
| Finchampstead Road / Molly Millars Lane | Junction redesign |
| Arborfield Cross Relief Road | New link road, part of Arborfield Garrison SDL |

| | |
|--|---|
| Winnersh Relief Road | New link road related to SDLs |
| Shinfield Eastern Relief Road | New link road, part of South of M4 SDL |
| Plough Lane roundabout | New junction on Binfield Road accessing development |
| Wokingham Town Centre Improvements: | |
| <i>Station Link Road</i> | <i>New link road</i> |
| <i>Elms Field Link Road</i> | <i>New link road, with access to development</i> |
| <i>Finchampstead Road / Wellington Road</i> | <i>Junction redesign</i> |
| <i>Reading Road / Shute End / Station Road</i> | <i>Junction redesign</i> |

4.5.4 Drawings for the Bracknell Forest LTP schemes have been provided by BFC, some of which are included in Appendix B. The majority have been adopted from Appendix 6.1 of the “Bracknell Town Centre Regeneration – Environmental Statement Volume 3B” (November 2004). Others are more recent designs developed by BFC and WSP.

4.5.5 Drawings for the Wokingham Borough schemes have been extracted from their adopted Core Strategy and Infrastructure and Contribution SPD, which can be found on the WBC website.

4.6 PUBLIC TRANSPORT SCHEMES

4.6.1 Public transport schemes identified as part of the LTP or LDF are assumed to form part of the Core Strategy 2026 proposals and as such are included in the ‘2026 Core Forecast’ model. Certain schemes, as detailed below in Table 4.9, are not included in the ‘2026 Reference Case’ scenario.

Table 4.9: Public Transport Improvement Schemes

| Location | 2026 Ref Case | 2026 Core Forecast |
|--|---------------|--------------------|
| Peacock Farm Park & Ride | x | x |
| Rerouting of bus route 190 through Amen Corner development | ✓ | ✓ |
| New bus route to serve Amen Corner development | ✓ | ✓ |

4.6.2 Although the Peacock Farm Park & Ride has been included as a new bus route, it has not been explicitly modelled as a Park & Ride site (ie. access by car is not available).

4.6.3 Various changes have also been made to service frequencies of buses serving the town centre, which are also included in both 2026 Forecast models. This information was extracted from the “Review of Planned Bus Station Capacity in Town Centre” (MVA Consultancy, January 2007) and is detailed below in Table 4.10.

Table 4.10: Bus Service Frequency Changes

| Route | Dir | Buses per hour | |
|----------------------------------|----------|----------------|-------------|
| | | 2007 Base | 2016 – 2026 |
| 53 - Bracknell-Wexham Hospital | EB | 1 | 1 |
| | WB | 1 | 1 |
| 53A - Bracknell-Jig's Lane Tesco | EB | - | 1 |
| | WB | - | 1 |
| 153 - Binfield-North Bracknell | EB | 2 | 3 |
| | WB | 2 | 3 |
| 154 - Bracknell-Bullbrook | Circular | 2 | 3 |
| 155 - Bracknell-Crown Wood | Circular | 2 | 3 |
| 158 - Bracknell-Birch Hill | CW | 3 | 3 |
| 159 - Bracknell-Birch Hill | ACW | 3 | 3 |
| 162 - Bracknell-Ascot | EB | - | 2 |
| | WB | - | 2 |
| 190 - Reading-Bracknell | EB | 3 | 3 |
| | WB | 2 | 3 |
| 191 - Bracknell-Slough | EB | 1 | 2 |
| | WB | 1 | 2 |
| 194 - Camberley-Bracknell | NB | 2 | 4 |
| | SB | 2 | 4 |
| 702 - Bracknell-London | EB | 1 | 1 |
| | WB | 1 | 1 |
| Peacock Farm Park & Ride | EB | - | 6 |
| | WB | - | 6 |
| NR2 - Bracknell-Guildford | Circular | - | 4 |
| SC1 - Bracknell-Staff College | Circular | - | 4 |
| New Amen Corner Bus Route | EB | - | 3 |
| | WB | - | 3 |

4.7 SLOW MODE IMPROVEMENTS

4.7.1 Table 4.11 provides information on proposed slow mode improvements for the BFB area.

Table 4.11: Slow Mode Walk/Cycle Improvements

| Location | 2026 Ref Case | 2026 Core Forecast |
|--------------------------------------|---------------|--------------------|
| Sandhurst/Crowthorne ped/cycle route | ✓ | ✓ |
| North Bracknell ped/cycle scheme | ✓ | ✓ |
| A3095 Warfield Road ped/cycle scheme | ✓ | ✓ |
| B3408 ped/cycle scheme | ✓ | ✓ |
| Staff College ped/cycle scheme | ✓ | ✓ |

5 Results

5.1 MODEL ASSESSMENT CRITERIA

5.1.1 This assessment focuses on the comparative performance of the '2026 Core Forecast' and the '2026 Reference Case' scenarios, based on an analysis of the results from both the demand model run and the assignment model.

5.1.2 The demand model output provides information on the quantity of trips allocated to car, slow and public transport modes. Analysis of the matrices developed and supplied for the assignment model enables quantification of the level of mode and distribution change in the morning and evening peaks.

5.1.3 From the VISUM assignment model an initial analysis of the network wide summary statistics has been undertaken which determines the following:

- Total vehicle hours
- Total vehicle kilometres
- Average network speed

5.1.4 Further analysis has been undertaken of particular locations and corridors to assess and compare:

- Link flows
- Volume/capacity ratios
- Journey times

5.1.5 The assessment carried out provides an overall view of the operation of the BFB network under the different demand and highway infrastructure scenarios in the two Forecast Scenarios enabling a realistic assessment of the likely future impacts of the proposed developments and infrastructure schemes.

5.2 MODEL ASSESSMENT AREAS

5.2.1 The future year model assessments serve two purposes:

- Identify strategic link flow changes / trip distribution patterns
- Identify key routes across the Borough that have increased in journey time, highlighting any junctions that may require improvements or development impact mitigation

5.2.2 This section reports on general network and demand statistics, link flow changes across the modelled area and changes in journey time on key routes across Bracknell.

5.3 DEMAND STATISTICS

5.3.1 Analysis of the demand model outputs shows a reduction in car matrix trips in 2026, compared to the 2007 Base Year, with a substantial increase in public transport trips. The combination of synthetic matrix changes and TEMPRO growth, applied to the Base Year traffic assignment matrices, yields an increase of 12% in assigned car trips in the 2026 Reference Case, for both the AM peak and PM peak. The 2026 Core Forecast demonstrates a further marginal increase in car trips.

5.3.2 Table 5.2 and Table 5.3 demonstrate the differences between the synthetic car matrix totals, produced directly by the demand model, and the assignment matrix totals, which are derived from the Base Year assignment matrix and the difference in Base and Forecast synthetic matrices, with TEMPRO growth factors applied to the zones outside of BFB.

Table 5.1: 24-Hour Trip Generation

| Matrix | 2007 Base Year | 2026 Ref Case | 2026 Core Forecast |
|--|----------------|---------------|--------------------|
| 24-Hour Trip Generation (person trips) | 3,138,619 | 3,580,617 | 3,580,704 |
| Growth over Base Year | - | 14% | 14% |

Table 5.2: AM Peak Car Matrix Summary

| Matrix | 2007 Base Year | 2026 Ref Case | 2026 Core Forecast |
|------------------------------------|----------------|---------------|--------------------|
| Synthetic | 273,529 | 232,971 | 252,443 |
| Assignment | 197,140 | 220,380 | 222,083 |
| Growth over Base Year (Synthetic) | - | -15% | -8% |
| Growth over Base Year (Assignment) | - | 12% | 13% |

Table 5.3: PM Peak Car Matrix Summary

| Matrix | 2007 Base Year | 2026 Ref Case | 2026 Core Forecast |
|------------------------------------|----------------|---------------|--------------------|
| Synthetic | 286,707 | 248,173 | 267,403 |
| Assignment | 232,403 | 259,277 | 262,893 |
| Growth over Base Year (Synthetic) | - | -13% | -7% |
| Growth over Base Year (Assignment) | - | 12% | 13% |

5.3.3 In terms of public transport the 2026 Reference Case shows a reasonable increase in assigned trips in the AM peak, with a small increase in the PM peak. The 2026 Core Forecast demonstrates a reduction in bus and rail trips in the AM peak, but an increase in the PM peak, as can be seen in Table 5.4 and Table 5.5.

Table 5.4: AM Peak Public Transport Matrix Summary

| Matrix | | 2007 Base Year | 2026 Ref Case | 2026 Core Forecast |
|------------------------------------|-------|----------------|---------------|--------------------|
| Assignment | PuT | 78,128 | 175,474 | 157,939 |
| | Bus | 394 | 374 | 381 |
| | Rail | 1,094 | 1,357 | 1,317 |
| | Total | 1,488 | 1,731 | 1,698 |
| Growth over Base Year (Synthetic) | | - | 125% | 102% |
| Growth over Base Year (Assignment) | | - | 16% | 14% |

Table 5.5: PM Peak Public Transport Matrix Summary

| Matrix | | 2007 Base Year | 2026 Ref Case | 2026 Core Forecast |
|------------------------------------|-------|----------------|---------------|--------------------|
| Synthetic | PuT | 78,510 | 183,648 | 164,279 |
| Assignment | Bus | 126 | 133 | 134 |
| | Rail | 676 | 704 | 720 |
| | Total | 802 | 837 | 854 |
| Growth over Base Year (Synthetic) | | - | 134% | 109% |
| Growth over Base Year (Assignment) | | - | 4% | 6% |

5.3.4 The differences between synthetic matrix and assignment matrix changes in public transport demonstrate that whilst overall mode shift within the model may favour private (car) or public transport, the resultant bus and rail trip matrices represent the impact on trips occurring within the Bracknell Forest, which may show a different mode shift pattern.

5.3.5 The growth in HGV matrices is derived from NTS projections and is illustrated below in Table 5.6 and Table 5.7.

Table 5.6: AM Peak HGV Matrix Summary

| Matrix | 2007 Base Year | 2026 Ref Case | 2026 Core Forecast |
|------------------------------------|----------------|---------------|--------------------|
| Assignment | 14,685 | 15,455 | 16,388 |
| Growth over Base Year (Assignment) | | - | 12% |

Table 5.7: PM Peak HGV Matrix Summary

| Matrix | 2007 Base Year | 2026 Ref Case | 2026 Core Forecast |
|------------------------------------|----------------|---------------|--------------------|
| Assignment | 10,212 | 11,396 | 11,396 |
| Growth over Base Year (Assignment) | | - | 12% |

5.4 NETWORK STATISTICS

5.4.1 Analysis of the overall network statistics shows an increase in vehicle hours and vehicle kilometres in the 2026 Reference Case, in line with the increase in the number of vehicle trips on the highway network. The 2026 Core Forecast shows a reduction in vehicle hours and vehicle kilometres, compared to the Reference Case, indicating shorter car vehicle journeys and a less congested network. This is demonstrated in Figure 5.1 and Figure 5.2 below.

5.4.2 A calculation of the average network speed is shown to be relatively stable across all modelled scenarios. Conditions are similar in the AM and PM peak periods, although average vehicle speeds are slightly lower in the PM peak.

Figure 5.1: AM Peak Network Statistics

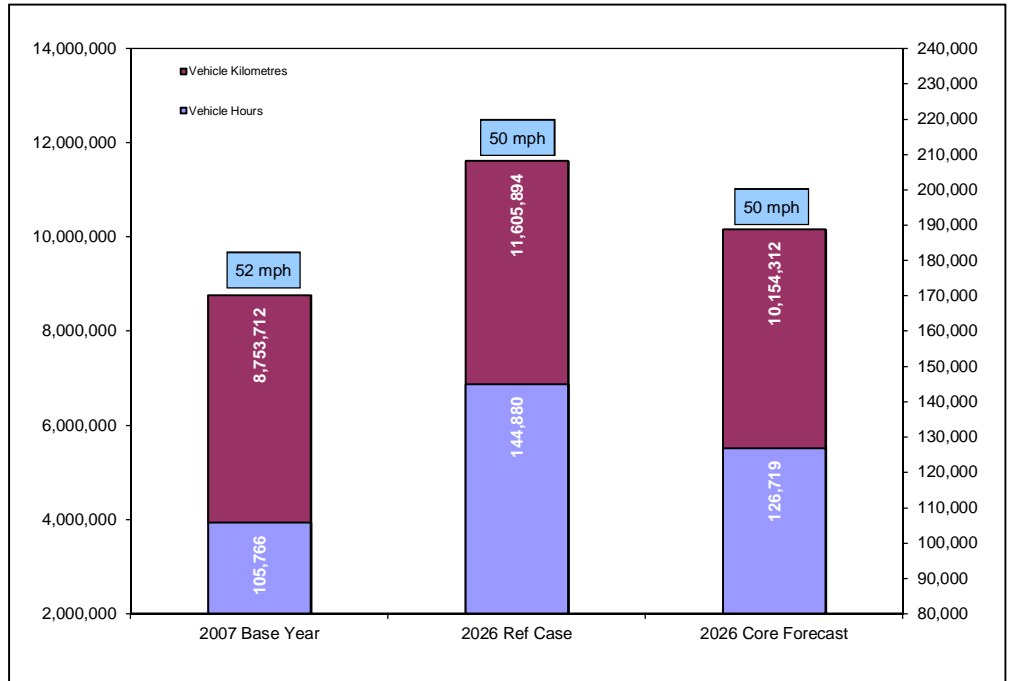
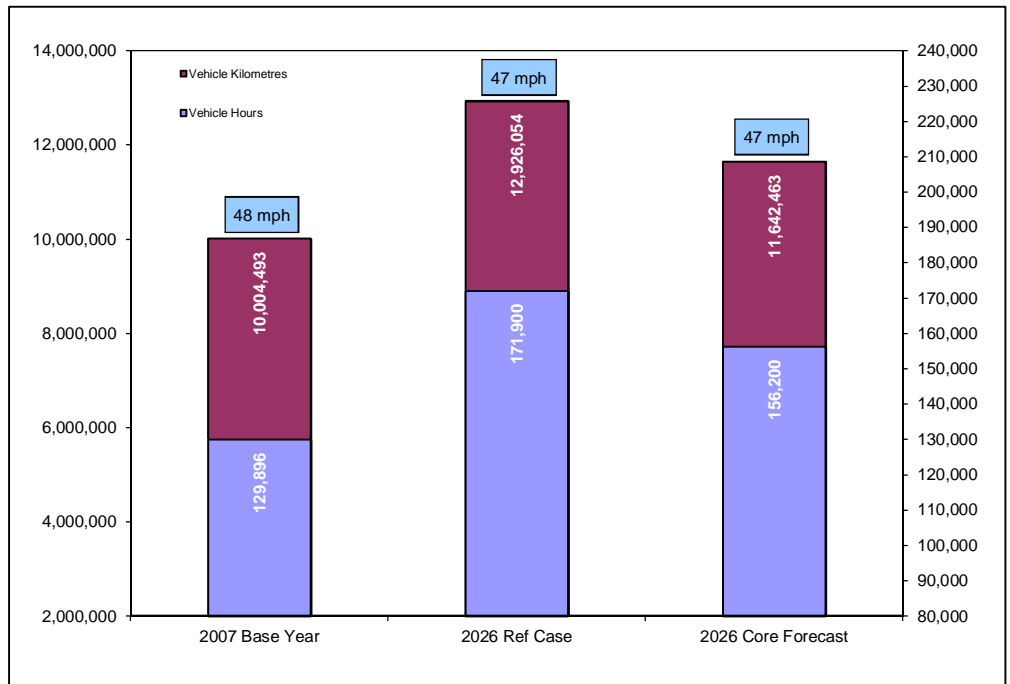


Figure 5.2: PM Peak Network Statistics



5.5 SCREENLINE / CORDON ANALYSIS

5.5.1 Four screenlines and three cordons were set up to examine the model outputs and summarise growth patterns in the Forecast Scenarios. Figure 5.3 illustrates the screenline/cordon locations.

5.5.2 The screenlines and cordons provide a strong indication as to how the traffic flows and trip patterns will change across the key areas of Bracknell. The screenline/cordon summary analysis is presented in the Table 5.8 and Table 5.9 with percentage changes in flows between each Forecast Scenario and the Base Year. A change of more than 10% is shown in red (increase) or blue (decrease). The full screenline/cordon results are presented in Appendix A.

5.5.3 The tables demonstrate that whilst the screenline/cordon flows generally increase in 2026 compared to the 2007 Base Year some locations show a reduction, particularly in the AM peak. The majority of locations show a reduction in the Core Forecast compared to the Reference Case in 2026. The changes are best understood through illustration, Figure 5.4 and Figure 5.5 demonstrate the growth in the AM and PM peaks.

Figure 5.3: Screenlines and Cordons

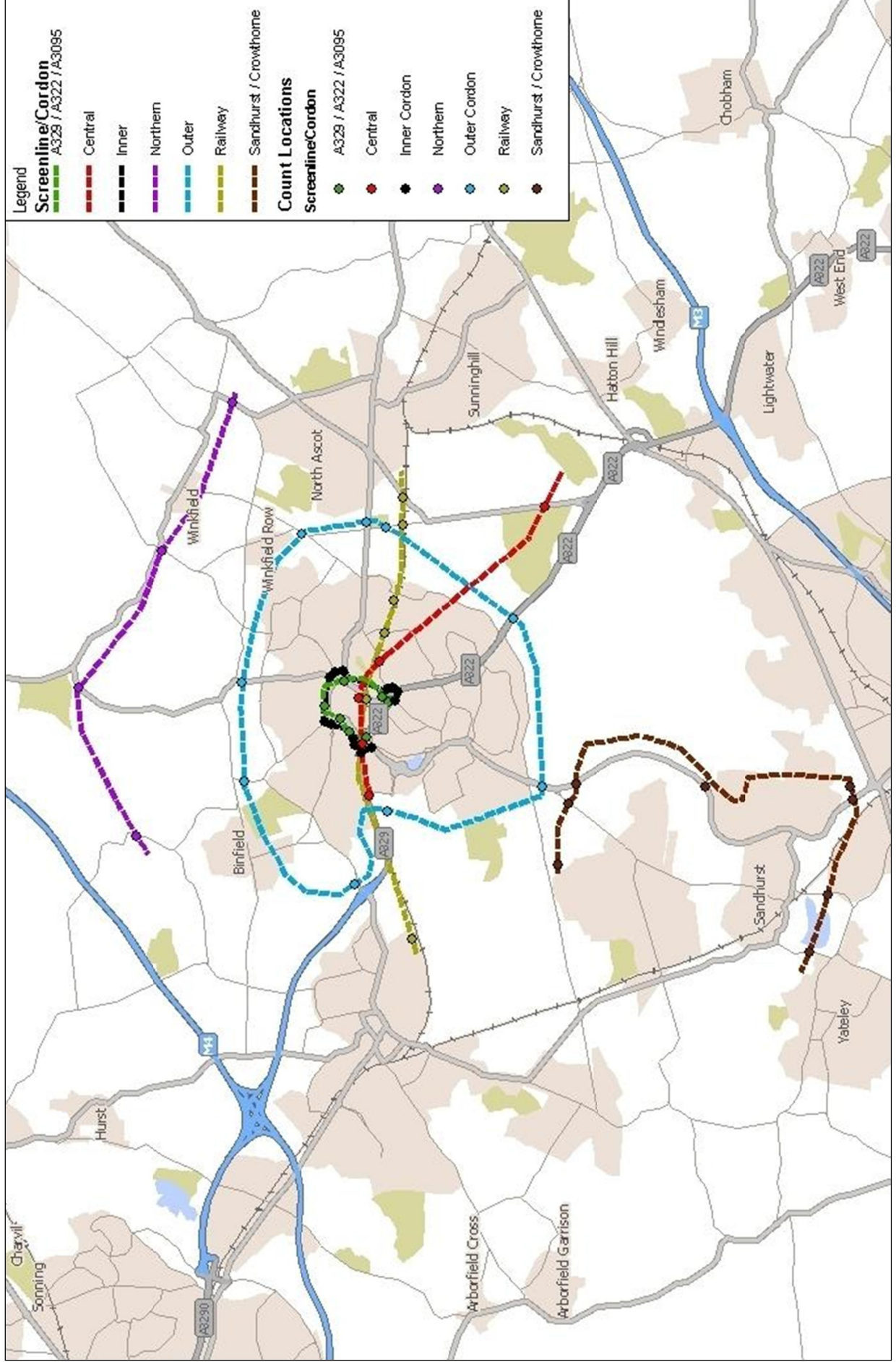


Table 5.8: AM Peak Screenline / Cordon Summary

| Cordon / Screenline | Direction | 2007 Base Year | 2026 Ref Case | | 2026 Core Forecast | | |
|-------------------------------|----------------|----------------|---------------|-----------|--------------------|-----------|-----------|
| | | Veh | Veh | % Diff BY | Veh | % Diff BY | % Diff RC |
| Inner Cordon | Inbound | 9358 | 10112 | 8% | 10699 | 14% | 6% |
| | Outbound | 8046 | 9617 | 20% | 9145 | 14% | -5% |
| Outer Cordon | Inbound | 10223 | 10202 | 0% | 10705 | 5% | 5% |
| | Outbound | 8687 | 10989 | 26% | 9951 | 15% | -9% |
| Central Screenline | Northbound | 5663 | 4922 | -13% | 4311 | -24% | -12% |
| | Southbound | 3970 | 3817 | -4% | 4038 | 2% | 6% |
| Railway Screenline | Northbound | 3816 | 6432 | 69% | 5391 | 41% | -16% |
| | Southbound | 1819 | 1862 | 2% | 2234 | 23% | 20% |
| A329/ A322 / A3095 Screenline | Clockwise | 7265 | 7141 | -2% | 8072 | 11% | 13% |
| | Anti-Clockwise | 6581 | 8848 | 34% | 8037 | 22% | -9% |
| Northern Screenline | Northbound | 2686 | 4164 | 55% | 3630 | 35% | -13% |
| | Southbound | 2086 | 1973 | -5% | 1955 | -6% | -1% |
| Sandhurst / Crowthorne Cordon | Inbound | 3904 | 4690 | 20% | 4555 | 17% | -3% |
| | Outbound | 4940 | 6136 | 24% | 5115 | 4% | -17% |

Table 5.9: PM Peak Screenline / Cordon Summary

| Cordon / Screenline | Direction | 2007 Base Year | 2026 Ref Case | | 2026 Core Forecast | | |
|-------------------------------|----------------|----------------|---------------|-----------|--------------------|-----------|-----------|
| | | Veh | Veh | % Diff BY | Veh | % Diff BY | % Diff RC |
| Inner Cordon | Inbound | 8616 | 8723 | 1% | 8736 | 1% | 0% |
| | Outbound | 10076 | 10578 | 5% | 10795 | 7% | 2% |
| Outer Cordon | Inbound | 9034 | 10909 | 21% | 9870 | 9% | -10% |
| | Outbound | 10172 | 9626 | -5% | 9982 | -2% | 4% |
| Central Screenline | Northbound | 3509 | 3434 | -2% | 3575 | 2% | 4% |
| | Southbound | 4629 | 4335 | -6% | 3910 | -16% | -10% |
| Railway Screenline | Northbound | 2181 | 3394 | 56% | 3626 | 66% | 7% |
| | Southbound | 3346 | 4357 | 30% | 4077 | 22% | -6% |
| A329/ A322 / A3095 Screenline | Clockwise | 6876 | 8829 | 28% | 9698 | 41% | 10% |
| | Anti-Clockwise | 6945 | 8917 | 28% | 8791 | 27% | -1% |
| Northern Screenline | Northbound | 2028 | 1903 | -6% | 1912 | -6% | 0% |
| | Southbound | 2686 | 3823 | 42% | 3469 | 29% | -9% |
| Sandhurst / Crowthorne Cordon | Inbound | 5110 | 6299 | 23% | 5579 | 9% | -11% |
| | Outbound | 4044 | 4689 | 16% | 4481 | 11% | -4% |

Figure 5.4: AM Peak Growth on Screenlines / Cordon Relative to Base Year

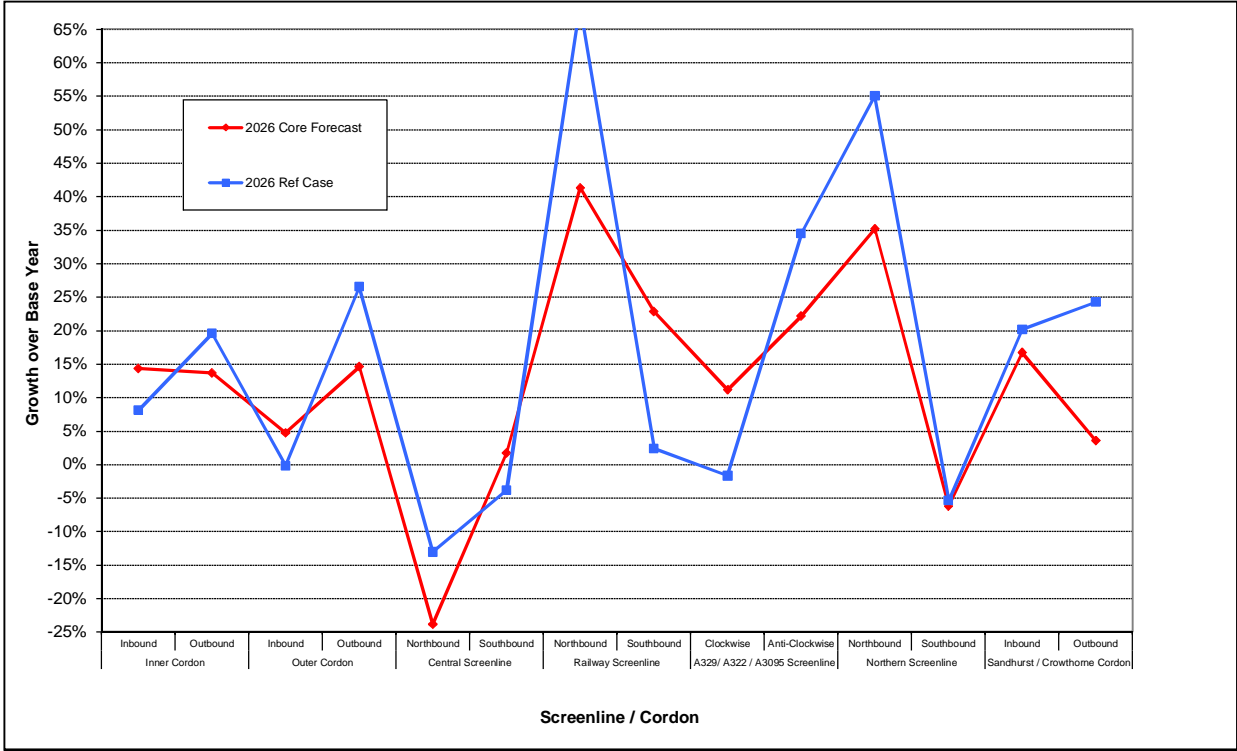
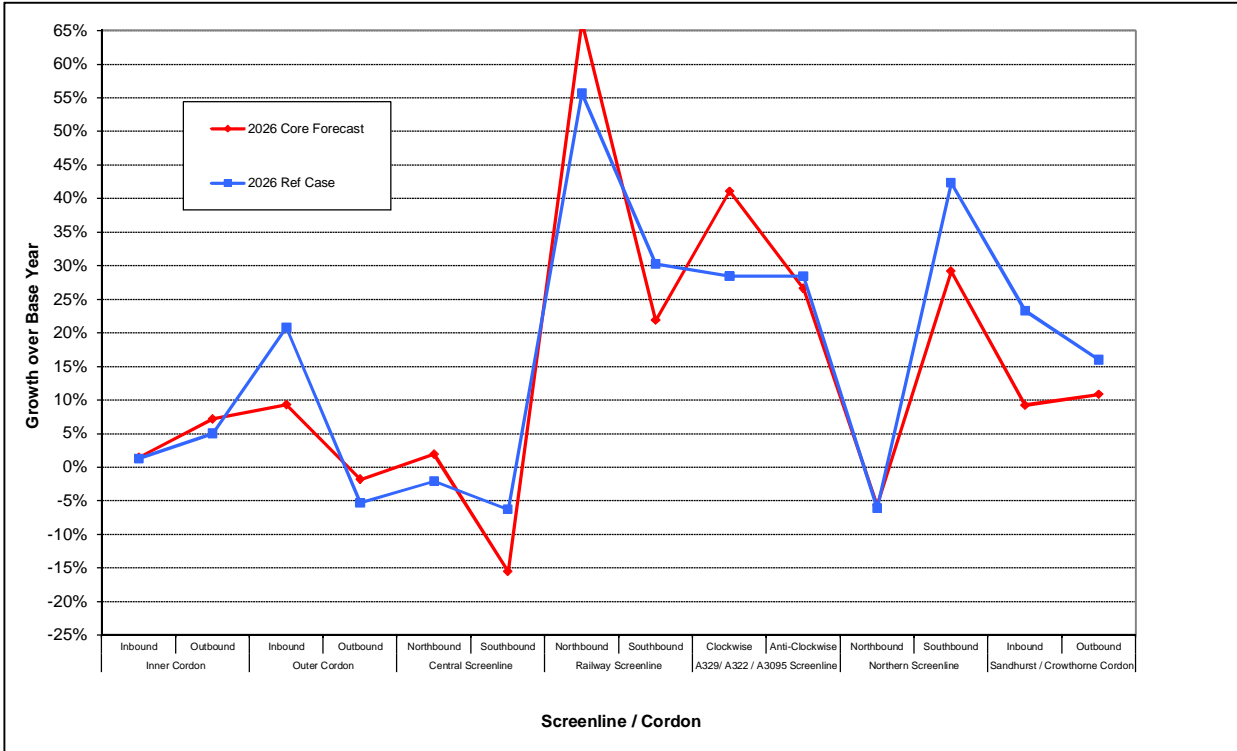


Figure 5.5: PM Peak Growth on Screenlines / Cordon Relative to Base Year



Inner Cordon

5.5.4 The Inner Cordon displays an increase in the 2026 Reference Case in the AM peak, as a result of significant increases in traffic flow at the four junctions included in this cordon. Horse and Groom roundabout specifically demonstrates a substantial increase on both the inbound and outbound cordons. This is likely to be a result of the junction improvements at Twin Bridges, Horse and Groom and 3M roundabouts. In the 2026 Core Forecast, a further increase is shown in the inbound direction, mainly at the Twin Bridges and Horse and Groom junctions, however a reduction is shown in the outbound direction.

5.5.5 Similarly in the PM peak, flow increases are demonstrated on several points of the cordon in the 2026 Reference Case, compared to the 2007 Base Year, though the increases are smaller than the AM peak. The 2026 Core Forecast shows a small reduction inbound, compared to the Reference Case, and a slight increase outbound, conversely to the AM peak.

Outer Cordon

5.5.6 There is a slight reduction on the Outer Cordon, inbound in the AM peak, in the 2026 Reference Case compared to the Base Year. This is largely due to the significant reduction in northbound trips on the A322 south of the Coral Reef junction, as well as a redistribution of trips away from Newell Green and the Plough and Harrow junction. There is also reduced flow on London Road east of Coppid Beech, contributing to the overall reduction of 2%. Conversely, there is a slight increase in westbound trips on this link, and an increase in southbound trips on the A322 south of the Coral Reef junction, which contributes to the overall growth in outbound traffic for the Outer Cordon in the AM peak.

5.5.7 The 2026 Core Forecast shows a slight increase in the outbound direction, in comparison with the Reference Case, and a reasonable reduction outbound, in the AM peak. In particular, increases are shown on London Road east of Coppid Beech and Newell Green, mainly as a result of developments in these areas.

5.5.8 This pattern is reversed in the PM peak, in line with expected traffic flow patterns in the different peak hours.

Central Screenline

5.5.9 For this cordon, the 2026 Reference Case demonstrates a reasonable reduction northbound in the AM peak, with a substantial flow reduction on Doncastle Road as a result of the new junctions introduced to the west joining Peacock Lane with the A329(M), providing an alternative route to Doncastle roundabout. A lesser reduction is also shown in the southbound direction. In the 2026 Core Forecast, a further reduction in flow is shown on Doncastle Road northbound where a switching of trip patterns is demonstrated across the Twin Bridges junction. An increase in southbound trips at Twin Bridges contributes to the increase on the southbound screenline, compared to the 2026 Reference Case.

5.5.10 This pattern is reversed in the PM peak, with reductions shown in both directions in the 2026 Reference Case, due to the new Peacock Farm junctions. An increase northbound, and a decrease southbound, are shown in the 2026 Core Forecast compared to the Reference Case.

Railway Screenline

5.5.11 A substantial increase in trips is experienced on the northbound Railway Screenline in the 2026 AM peak Reference Case, primarily due to the introduction of a Southern Distributor road to the west on the outskirts of Wokingham, and associated development. However, the southbound direction demonstrates very little change from the 2007 Base Year. In the 2026 Core Forecast, a reduction is shown northbound as a result of reduced flows on Ralphs Ride and the A3095 north of Horse and Groom roundabout. Increases in the opposite direction, as well as on Waterloo Road from Wokingham, contributes to an overall increase in screenline flow in the southbound direction, compared to the Reference Case.

5.5.12 In the PM peak, similar increases are shown on Waterloo Road in both directions following the proposed developments and infrastructure changes in Wokingham, yielding substantial increases in screenline flow in the 2026 Reference Case. The 2026 Core Forecast demonstrates a converse impact to the AM peak, with reduction southbound and an increase northbound.

A329/A322/A3095 Screenline

5.5.13 A notable increase is observed anti-clockwise in the 2026 Reference Case in both AM and PM peaks, caused largely by increases in flow through the Twin Bridges and Horse and Groom junctions. In the clockwise direction, however, a decrease is shown in the AM peak with a switching of trip patterns around Twin Bridges. In the PM peak, there is still a substantial increase through both junctions as in the anti-clockwise case. In the 2026 Core Forecast, due to the circular nature of this screenline, an increase is shown in both AM and PM peaks in the clockwise direction, with a reduction anti-clockwise.

Northern Screenline

5.5.14 As highlighted by the Outer Cordon, there is a significant increase in trips travelling northbound out of Bracknell in the 2026 AM peak Reference Case, compared to the Base Year. Southbound, although there is some switching of trips between alternative routes, the overall screenline flow is very similar to the Base Year. With the northern developments included in the 2026 Core Forecast, a reduction is shown on the northbound screenline in the AM peak, with an increase southbound.

5.5.15 The impacts on the Northern Screenline are reversed in the PM peak.

Sandhurst/Crowthorne Screenline

5.5.16 For this cordon, the 2026 Reference Case demonstrates a reasonable increase in both directions in the AM peak as well as the PM peak. In the 2026 Core Forecast, a reduction is shown in all cases, mainly due to a redistribution of through-trips away from the Crowthorne area. Increases in trips from the developments in this area are concentrated mainly to the north of the cordon, so are not captured in these results.

5.6 STRATEGIC FLOW ANALYSIS

5.6.1 A series of flow plots illustrating the flow changes in the 2026 Forecast Scenarios relative to the 2007 Base Year, as well as each other, are presented in this section. They attempt to demonstrate at a strategic level the marked increases / decreases in flows across Bracknell.

AM Peak Highway Flow Plots

5.6.2 The AM peak flows are illustrated in Figure 5.6 to Figure 5.11, and Table 5.10 displays the flows on key links in the Base Year and Forecast Scenarios.

Table 5.10: AM Peak Traffic Flows on Key Links

| Location | | Dir | 2007 Base Year | 2026 Ref Case | | 2026 Core Forecast | | |
|--|--|-----|----------------|---------------|-----------|--------------------|-----------|-----------|
| | | | Veh | Veh | % Diff BY | Veh | % Diff BY | % Diff RC |
| M4 J10 - Coppid Beech | | | | | | | | |
| 1 | M4 (west of Junction 10) | EB | 3960 | 3690 | -7% | 4252 | 7% | 15% |
| | | WB | 4208 | 4473 | 6% | 4719 | 12% | 5% |
| 2 | M4 (east of Junction 10) | EB | 4515 | 6172 | 37% | 5511 | 22% | -11% |
| | | WB | 4736 | 5002 | 6% | 4873 | 3% | -3% |
| 3 | A329(M) (north of M4) | NB | 4335 | 4071 | -6% | 4432 | 2% | 9% |
| | | SB | 4127 | 4382 | 6% | 4500 | 9% | 3% |
| 4 | A329(M) (south of M4) | NB | 3835 | 5428 | 42% | 4650 | 21% | -14% |
| | | SB | 3601 | 3788 | 5% | 3613 | 0% | -5% |
| 5 | A329 London Rd (west of Coppid Beech) | EB | 1248 | 1551 | 24% | 1623 | 30% | 5% |
| | | WB | 843 | 878 | 4% | 967 | 15% | 10% |
| 6 | B3408 London Road (east of Coppid Beech) | EB | 1903 | 1642 | -14% | 1926 | 1% | 17% |
| | | WB | 1324 | 2087 | 58% | 1958 | 48% | -6% |
| John Nike Way - Millennium Roundabout | | | | | | | | |
| 7 | John Nike Way | EB | 1061 | 323 | -70% | 291 | -73% | -10% |
| | | WB | 349 | 624 | 79% | 54 | -85% | -91% |
| 8 | B3408 Wokingham Road (east of Turnpike Rd rab) | EB | 846 | 363 | -57% | 554 | -35% | 53% |
| | | WB | 444 | 768 | 73% | 576 | 30% | -25% |
| 9 | A329 Millennium Way | EB | 1031 | 1487 | 44% | 1290 | 25% | -13% |
| | | WB | 968 | 1427 | 47% | 1359 | 40% | -5% |
| 10 | A329 (east of Millennium roundabout) | EB | 712 | 815 | 14% | 847 | 19% | 4% |
| | | WB | 1194 | 1293 | 8% | 1196 | 0% | -8% |
| Peacock Lane - A322 Downshire Way | | | | | | | | |
| 11 | Peacock Lane (west of new junction) | EB | 602 | 1070 | 78% | 1382 | 130% | 29% |
| | | WB | 353 | 1267 | 259% | 1285 | 264% | 1% |
| 12 | A329 Berkshire Way (west of Doncastle Way) | EB | 2593 | 2296 | -11% | 2133 | -18% | -7% |
| | | WB | 2532 | 2338 | -8% | 2052 | -19% | -12% |
| 13 | A322 Downshire Way | EB | 1269 | 1620 | 28% | 1570 | 24% | -3% |
| | | WB | 1098 | 1090 | -1% | 1609 | 47% | 48% |
| Forest Road - M3 | | | | | | | | |
| 14 | Forest Road (east of A321 Twyford Road) | EB | 728 | 860 | 18% | 882 | 21% | 3% |
| | | WB | 301 | 20 | -93% | 17 | -94% | -15% |
| 15 | Warfield Road (north of Millennium roundabout) | NB | 751 | 812 | 8% | 934 | 24% | 15% |
| | | SB | 548 | 426 | -22% | 483 | -12% | 13% |
| 16 | A3095 Church Road (north of Station roundabout) | NB | 595 | 1264 | 112% | 1069 | 80% | -15% |
| | | SB | 616 | 490 | -20% | 523 | -15% | 7% |
| 17 | A3095 Bagshot Road (south of Station roundabout) | NB | 1339 | 2362 | 76% | 1719 | 28% | -27% |
| | | SB | 648 | 575 | -11% | 603 | -7% | 5% |
| 18 | A322 Bagshot Road (south of Horse and | NB | 1990 | 2452 | 23% | 2644 | 33% | 8% |

| Location | | Dir | 2007 Base Year | 2026 Ref Case | | 2026 Core Forecast | | |
|---------------------------|---|-----|----------------|---------------|-----------|--------------------|-----------|-----------|
| | | | Veh | Veh | % Diff BY | Veh | % Diff BY | % Diff RC |
| | Groom rab) | SB | 1265 | 1432 | 13% | 1822 | 44% | 27% |
| 19 | Nine Mile Ride (between A3095 and A322) | EB | 817 | 1039 | 27% | 1212 | 48% | 17% |
| | | WB | 885 | 1278 | 44% | 1311 | 48% | 3% |
| 20 | A322 (north of M3) | NB | 3234 | 2929 | -9% | 2896 | -10% | -1% |
| | | SB | 3239 | 3480 | 7% | 3287 | 1% | -6% |
| Binfield Road - M3 | | | | | | | | |
| 21 | Binfield Road (north of 3M roundabout) | NB | 276 | 756 | 174% | 625 | 126% | -17% |
| | | SB | 386 | 718 | 86% | 729 | 89% | 2% |
| 22 | A329 Skimped Hill Lane (south of 3M roundabout) | NB | 615 | 1118 | 82% | 866 | 41% | -23% |
| | | SB | 803 | 524 | -35% | 573 | -29% | 9% |
| 23 | A329 Skimped Hill Lane (north of Twin Bridges) | NB | 1196 | 616 | -48% | 940 | -21% | 53% |
| | | SB | 603 | 351 | -42% | 385 | -36% | 10% |
| 24 | A3095 (south of Twin Bridges) | NB | 1734 | 1777 | 2% | 1940 | 12% | 9% |
| | | SB | 1297 | 1265 | -2% | 1065 | -18% | -16% |
| 25 | A3095 Foresters Way (south of Bracknell Rd rab) | NB | 1042 | 1022 | -2% | 1014 | -3% | -1% |
| | | SB | 720 | 1063 | 48% | 933 | 30% | -12% |
| 26 | A331 (north of M3) | NB | 2425 | 2451 | 1% | 2650 | 9% | 8% |
| | | SB | 2781 | 3489 | 25% | 2713 | -2% | -22% |

5.6.3 Here we discuss the changes in flows shown in Table 5.10 in terms of main corridors through the Bracknell Forest area.

M4 Junction 10 to Coppid Beech roundabout

5.6.4 In the 2026 Reference Case, there is a flow increase on the majority of links compared to the 2007 Base Year, some of which experience an increase of more than 20%. These include:

- M4 eastbound (east of J10) (37%)
- A329(M) northbound (south of M4) (42%)
- London Road eastbound, west of Coppid Beech (24%)
- London Road westbound, east of Coppid Beech (58%)

5.6.5 The most significant reduction in AM peak hour traffic flow, in the 2026 Reference Case, occurs on London Road eastbound, east of Coppid Beech (14%). This is mainly a result of a redistribution of trips on to the A329(M) through the Peacock Farm junction, away from the London Road / Cain Road route.

5.6.6 In the 2026 Core Forecast, flow increases are shown in both directions on the M4, west of J10, however a reduction is shown to the east of J10. Similarly increases are shown on the A329(M) north of J10, with a reduction to the south. Increases are generally experienced on the approaches to Coppid Beech roundabout in comparison to the Reference Case, following improvements at this junction and a number of developments in place to the east.

John Nike Way to Millennium roundabout

5.6.7 There are shown to be some proportionately large decreases in flow eastbound along John Nike Way and Wokingham Road in the 2026 Reference Case, in comparison with the 2007 Base Year. In the westbound direction, however, flows are increased substantially. The A329 Millennium Way and London Road also demonstrate notable traffic flow increases following development within the Town Centre.

5.6.8 In the 2026 Core Forecast, there is a general reduction in links in this area compared to the Reference Case, most significantly on John Nike Way as a result of redistribution of trips onto the new Amen Corner spine road.

Peacock Lane to A322 Downshire Way

5.6.9 In the 2026 Reference Case a substantial increase in traffic flow is shown on Peacock Lane to the west of the new junction, with a corresponding reduction on the A329 west of Doncastle Roundabout. This reflects the switching of trips away from the Doncastle junction following introduction of the new Peacock Farm junctions, as well as additional trips generated by Peacock Farm and south Wokingham developments.

5.6.10 In the 2026 Core Forecast, a further increase is shown on Peacock Lane as well as the A322 Downshire Way westbound. However a reduction is shown in the eastbound direction and on the A329 west of Doncastle Roundabout, a pattern which continues along the A329 (M) towards the M4.

Forest Road to M3

5.6.11 There are some significant increases in the 2026 Reference Case along this corridor in the AM peak. The A3095 Church Road, north of Station roundabout, demonstrates a 112% increase in the northbound direction, in fact substantial increases are shown along the A322 from Coral Reef junction approaching the Town Centre. This is mainly due to the growth in trips generated by the Town Centre and Staff College developments, alongside an overall growth in through-trips.

5.6.12 In the 2026 Core Forecast, some further increases occur due to developments located to the north of the Town Centre, for example on Warfield Road, as well as the Crowthorne development sites which generate an increase in traffic flow eastbound on Nine Mile Ride. However, some links show a reduction in flow, particularly on Bagshot Road / Church Road northbound where growth in traffic demand from developments is concentrated on other areas of the network.

Binfield Road to M3

5.6.13 On this corridor, Binfield Road experiences the greatest changes in flow in the 2026 Reference Case, with increases of 174% and 86% northbound and southbound respectively. Substantial increases are also shown on Foresters Way and the A331 north of the M3 in the southbound direction, reflecting the overall growth in traffic volumes both travelling through the network and generated by developments.

5.6.14 In the 2026 Core Forecast, although an increase is shown on Skimped Hill Lane in the northbound direction, the majority of these links report a reduction. In the case of Binfield Road, some redistribution of trips occurs as a result of the new north-south link road provided between Three Legged Cross and Harvest Ride.

5.6.15 Figure 5.6 and Figure 5.7 illustrate the Base Year highway flows from the final validated AM peak Base Year assignment, around the town centre and on a wider scale.

Figure 5.6: AM Peak 2007 Base Year Flow – Town Centre

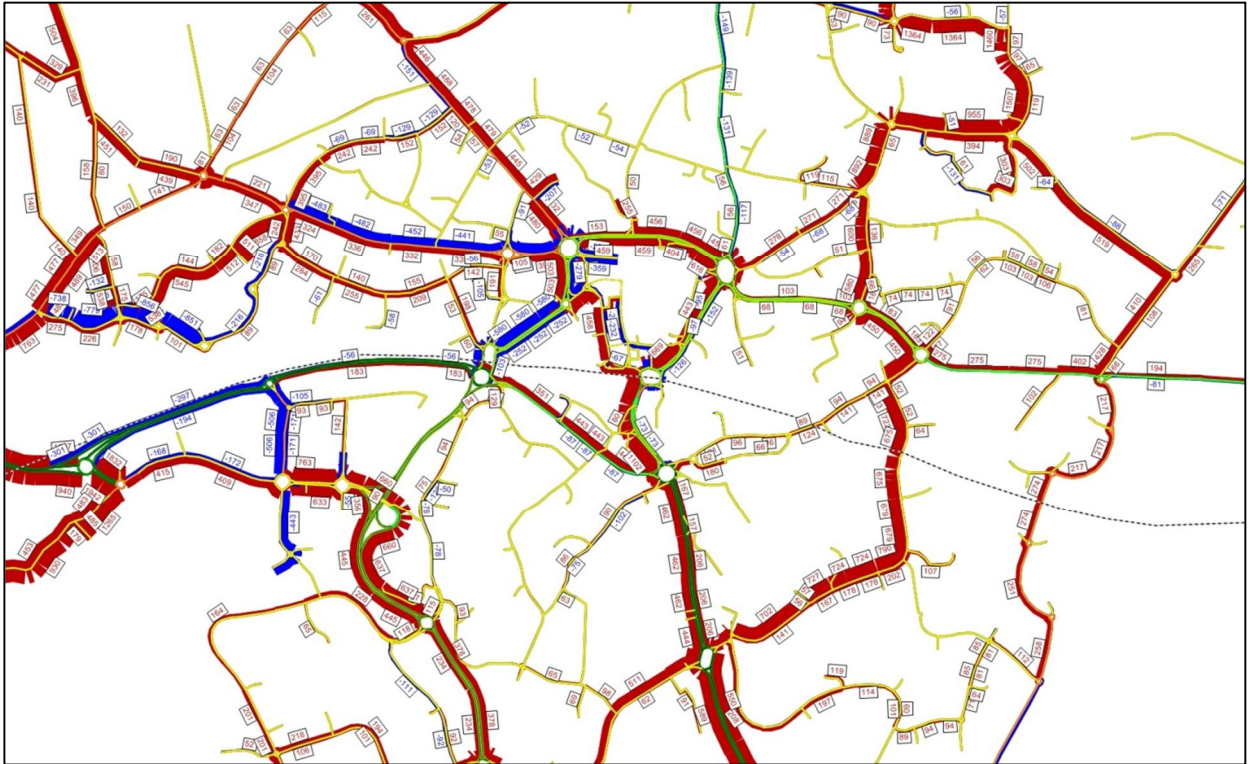


Figure 5.7: AM Peak 2007 Base Year Flow – Wider Area



5.6.16 Figure 5.8 and Figure 5.9 compare the AM peak 2026 Reference Case traffic flows with the Base Year, around the town centre and on a wider scale.

Figure 5.8: AM Peak 2026 Ref Case and 2007 Base Year Flow Comparison – Town Centre



5.6.17 Figure 5.8 shows there are substantial increases in traffic flow around the new Peacock Farm junctions as a result of this development and developments in the south of Wokingham. This in turn draws more traffic onto the A3095. Other substantial flow increases are demonstrated on the A322 towards the Town Centre as a result of development in this area. There is also a reasonable shift in trip patterns away from John Nike Way onto London Road.

Figure 5.9: AM Peak 2026 Ref Case and 2007 Base Year Flow Comparison – Wider Area

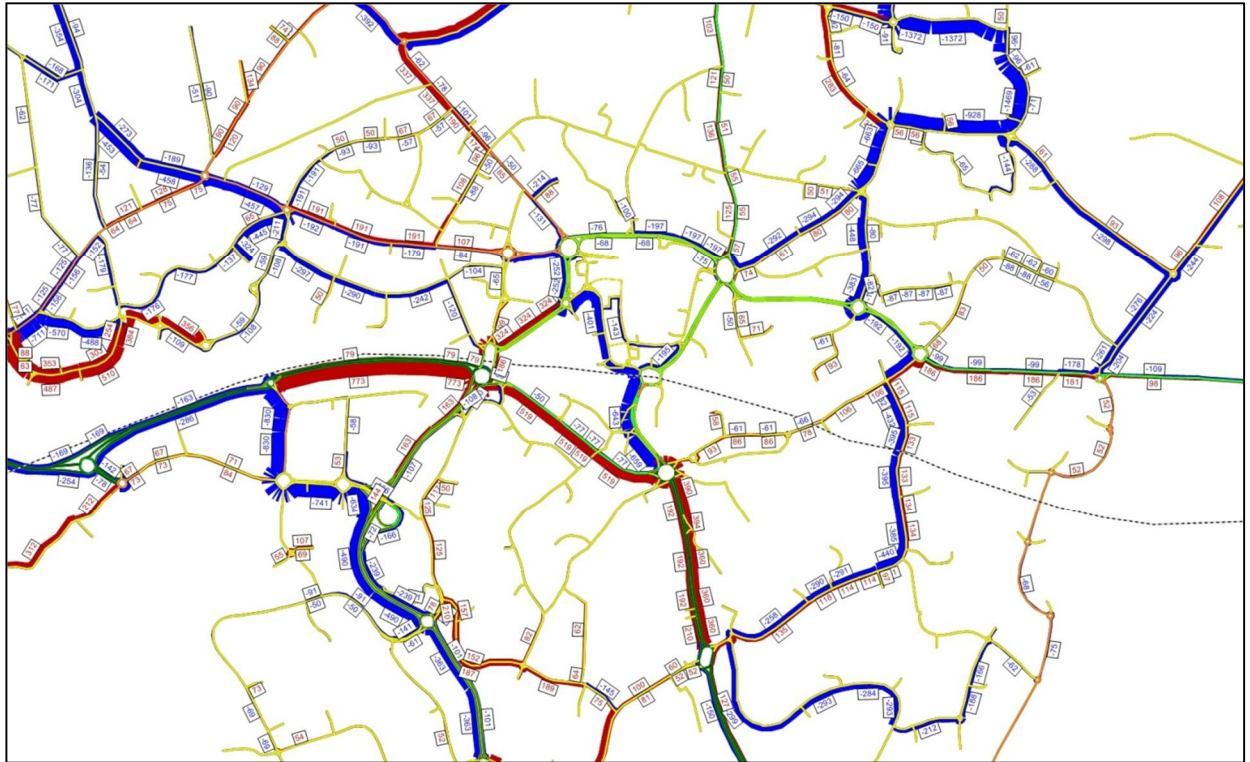


5.6.18 Figure 5.9 shows there are large increases in traffic along the M3 eastbound and on the M4 east of Junction 10, as well as on the A329(M) south of this junction. The increases on the A322 Bagshot Road, north of Nine Mile Ride, are distributed between Nine Mile Ride, New Forest Ride and the A322 Bracknell Road to the south, with some redistribution of traffic between these routes. Heading eastbound along the A329 London Road leaving Wokingham there is a substantial increase approaching Coppid Beech.

5.6.19 Significant increases are shown on the Easthampstead Road / Old Wokingham Road area as a result of developments and infrastructure improvements in Wokingham, such as the Southern Distributor Road.

5.6.20 Figure 5.10 and Figure 5.11 compare the AM peak 2026 Core Forecast traffic flows with the 2026 Reference Case, around the town centre and on a wider scale.

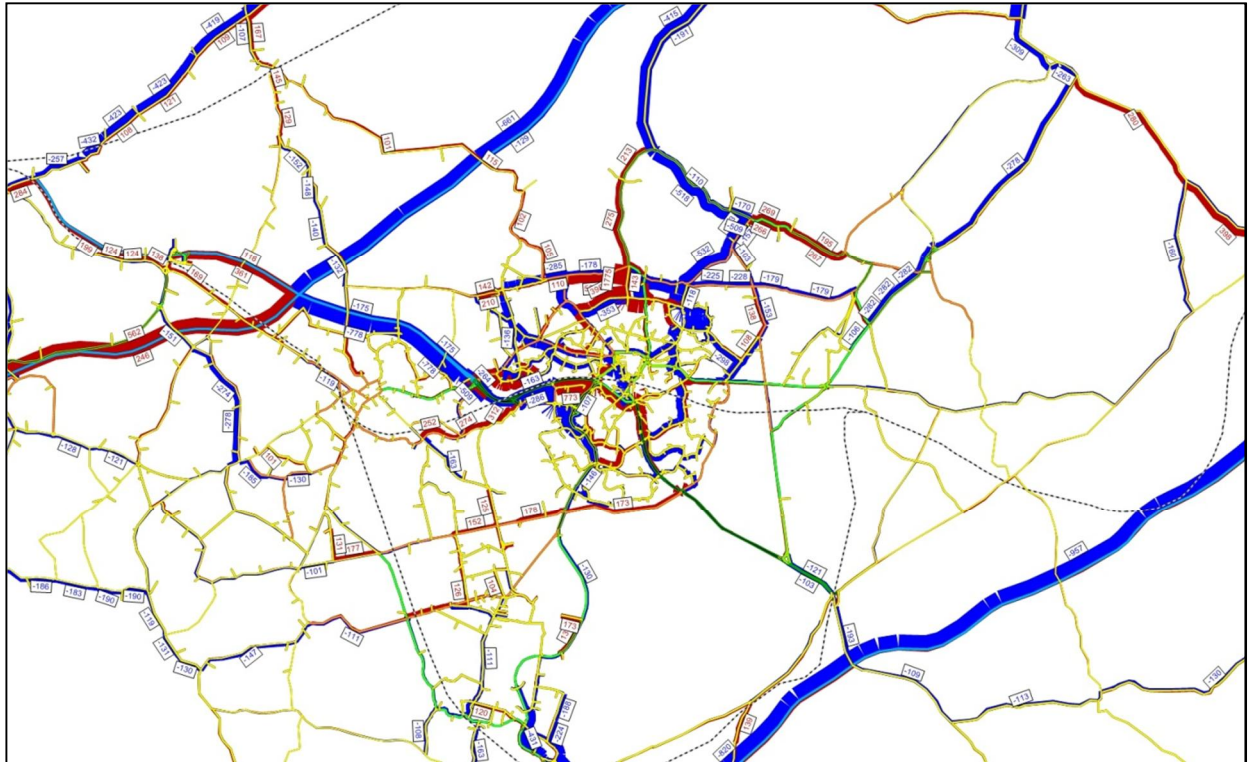
Figure 5.10: AM Peak 2026 Core Forecast and 2026 Ref Case Flow Comparison – Town Centre



5.6.21 Figure 5.10 shows a switching of trips between the A3095 and the A322 towards the A329(M), resulting from signalisation of the Doncastle Roundabout. A significant redistribution of trips is also shown away from John Nike Way onto the new Amen Corner spine road.

5.6.22 There are some notable reductions in traffic flow along Ralph's Ride and Jig's Lane, some of which are due to the more attractive alternative route provided to the north between Three Legged Cross and Harvest Ride.

Figure 5.11: AM Peak 2026 Core Forecast and 2026 Ref Case Flow Comparison – Wider Area



5.6.23 Figure 5.11 shows some substantial trip redistributions, particularly to the north of the Town Centre around the site of the White Grove / Quelm Park development. The new link road provided between Three Legged Cross and Harvest Ride serves to reduce pressure on the eastern routes.

5.6.24 There are also notable reductions in traffic volumes on the A329(M) northbound / M4 eastbound route away from Bracknell, and the M3 eastbound. These differences arise primarily from a reduction in trips from the Bracknell and Crowthorne areas, onto these routes. This indicates a higher proportion of shorter-distance trips, generated by the introduction of more local workplace developments.

PM Peak Highway Flow Plots

5.6.25 The PM peak flows are illustrated in Figure 5.12 to Figure 5.17, and Table 5.11 displays the flows on key links in the Base and Forecast Scenarios.

Table 5.11: PM Peak Traffic Flows on Key Links

| Location | | Dir | 2007 Base Year | 2026 Ref Case | | 2026 Core Forecast | | |
|--|--|-----|----------------|---------------|-----------|--------------------|-----------|-----------|
| | | | Veh | Veh | % Diff BY | Veh | % Diff BY | % Diff RC |
| M4 J10 - Coppid Beech | | | | | | | | |
| 1 | M4 (west of Junction 10) | EB | 3920 | 4666 | 19% | 4719 | 20% | 1% |
| | | WB | 4939 | 5290 | 7% | 5506 | 11% | 4% |
| 2 | M4 (east of Junction 10) | EB | 4843 | 5246 | 8% | 5038 | 4% | -4% |
| | | WB | 5167 | 6348 | 23% | 5889 | 14% | -7% |
| 3 | A329(M) (north of M4) | NB | 3626 | 3639 | 0% | 4048 | 12% | 11% |
| | | SB | 4185 | 4208 | 1% | 4523 | 8% | 7% |
| 4 | A329(M) (south of M4) | NB | 3617 | 3814 | 5% | 3677 | 2% | -4% |
| | | SB | 3481 | 4862 | 40% | 4216 | 21% | -13% |
| 5 | A329 London Rd (west of Coppid Beech) | EB | 867 | 1344 | 55% | 1487 | 72% | 11% |
| | | WB | 1274 | 1359 | 7% | 1339 | 5% | -1% |
| 6 | B3408 London Road (east of Coppid Beech) | EB | 1133 | 1314 | 16% | 1505 | 33% | 15% |
| | | WB | 1764 | 2007 | 14% | 2312 | 31% | 15% |
| John Nike Way - Millennium Roundabout | | | | | | | | |
| 7 | John Nike Way | EB | 278 | 469 | 69% | 409 | 47% | -13% |
| | | WB | 810 | 1036 | 28% | 404 | -50% | -61% |
| 8 | B3408 Wokingham Road (east of Turnpike Rd rab) | EB | 540 | 215 | -60% | 151 | -72% | -30% |
| | | WB | 935 | 1073 | 15% | 1169 | 25% | 9% |
| 9 | A329 Millennium Way | EB | 1062 | 1897 | 79% | 1873 | 76% | -1% |
| | | WB | 886 | 1099 | 24% | 1075 | 21% | -2% |
| 10 | A329 (east of Millennium roundabout) | EB | 1125 | 1243 | 10% | 1311 | 17% | 5% |
| | | WB | 954 | 922 | -3% | 903 | -5% | -2% |
| Peacock Lane - A322 Downshire Way | | | | | | | | |
| 11 | Peacock Lane (west of new junction) | EB | 217 | 1256 | 479% | 1118 | 415% | -11% |
| | | WB | 948 | 1812 | 91% | 2077 | 119% | 15% |
| 12 | A329 Berkshire Way (west of Doncastle Way) | EB | 2378 | 2592 | 9% | 2881 | 21% | 11% |
| | | WB | 2472 | 1667 | -33% | 1870 | -24% | 12% |
| 13 | A322 Downshire Way | EB | 1587 | 2581 | 63% | 2595 | 64% | 1% |
| | | WB | 1360 | 1707 | 26% | 1811 | 33% | 6% |
| Forest Road - M3 | | | | | | | | |
| 14 | Forest Road (east of A321 Twyford Road) | EB | 596 | 830 | 39% | 835 | 40% | 1% |
| | | WB | 628 | 244 | -61% | 562 | -11% | 130% |
| 15 | Warfield Road (north of Millennium roundabout) | NB | 781 | 557 | -29% | 579 | -26% | 4% |
| | | SB | 353 | 496 | 41% | 556 | 58% | 12% |
| 16 | A3095 Church Road (north of Station roundabout) | NB | 758 | 747 | -1% | 738 | -3% | -1% |
| | | SB | 538 | 1027 | 91% | 1095 | 104% | 7% |
| 17 | A3095 Bagshot Road (south of Station roundabout) | NB | 763 | 649 | -15% | 656 | -14% | 1% |
| | | SB | 1073 | 1307 | 22% | 1272 | 19% | -3% |
| 18 | A322 Bagshot Road (south of Horse and Groom rab) | NB | 1616 | 970 | -40% | 962 | -40% | -1% |
| | | SB | 1999 | 2564 | 28% | 2617 | 31% | 2% |
| 19 | Nine Mile Ride (between A3095 and A322) | EB | 596 | 578 | -3% | 665 | 12% | 15% |
| | | WB | 1002 | 1225 | 22% | 1187 | 18% | -3% |
| 20 | A322 (north of M3) | NB | 3478 | 3447 | -1% | 3231 | -7% | -6% |

| Location | | Dir | 2007 Base Year | 2026 Ref Case | | 2026 Core Forecast | | |
|---------------------------|---|-----|----------------|---------------|-----------|--------------------|-----------|-----------|
| | | | Veh | Veh | % Diff BY | Veh | % Diff BY | % Diff RC |
| | | SB | 3143 | 3084 | -2% | 3277 | 4% | 6% |
| Binfield Road - M3 | | | | | | | | |
| 21 | Binfield Road (north of 3M roundabout) | NB | 506 | 624 | 23% | 756 | 49% | 21% |
| | | SB | 289 | 807 | 179% | 770 | 166% | -5% |
| 22 | A329 Skimped Hill Lane (south of 3M roundabout) | NB | 670 | 682 | 2% | 871 | 30% | 28% |
| | | SB | 692 | 809 | 17% | 648 | -6% | -20% |
| 23 | A329 Skimped Hill Lane (north of Twin Bridges) | NB | 500 | 545 | 9% | 751 | 50% | 38% |
| | | SB | 729 | 566 | -22% | 564 | -23% | 0% |
| 24 | A3095 (south of Twin Bridges) | NB | 1096 | 1070 | -2% | 1118 | 2% | 4% |
| | | SB | 2196 | 1430 | -35% | 1517 | -31% | 6% |
| 25 | A3095 Foresters Way (south of Bracknell Rd rab) | NB | 730 | 951 | 30% | 882 | 21% | -7% |
| | | SB | 1353 | 1012 | -25% | 1278 | -6% | 26% |
| 26 | A331 (north of M3) | NB | 2511 | 2849 | 13% | 2582 | 3% | -9% |
| | | SB | 2180 | 2106 | -3% | 2374 | 9% | 13% |

5.6.26 Here we discuss the changes in flows shown in Table 5.11 in terms of main corridors through the Bracknell Forest area.

M4 Junction 10 to Coppid Beech roundabout

5.6.27 In the 2026 Reference Case, there is a flow increase on all links compared to the 2007 Base Year, some of which experience an increase of around 20% or more. These include:

- M4 eastbound (west of J10) (19%)
- M4 westbound (east of J10) (23%)
- A329(M) southbound (south of M4) (40%)
- London Road eastbound, west of Coppid Beech (55%)

5.6.28 Increases of more than 10% are also shown on the B3408 London Road, east of Coppid Beech.

5.6.29 In the 2026 Core Forecast, a flow increase is shown in the westbound direction on the M4, west of J10, however a reduction is shown to the east of J10. Similarly increases are shown on the A329(M) north of J10, with a reduction to the south. Further increases are generally experienced on the approaches to Coppid Beech roundabout in comparison to the Reference Case, following improvements at this junction and a number of developments in place to the east.

John Nike Way to Millennium roundabout

5.6.30 A proportionately large decrease in flow occurs eastbound along Wokingham Road in the 2026 Reference Case, in comparison with the 2007 Base Year. In the westbound direction, however, flows are notably increased, along with other links on this corridor. The A329 Millennium Way also demonstrates a significant traffic flow increase following development within the Town Centre.

5.6.31 In the 2026 Core Forecast, there is a general reduction in links in this area compared to the Reference Case, most significantly on John Nike Way as a result of redistribution of trips onto the new Amen Corner spine road.

Peacock Lane to A322 Downshire Way

5.6.32 In the 2026 Reference Case a substantial increase in traffic flow is shown on Peacock Lane to the west of the new junction, with a corresponding reduction in the westbound direction on the A329 west of Doncastle Roundabout. This reflects the switching of trips away from the Doncastle junction following introduction of the new Peacock Farm junctions, as well as additional trips generated by Peacock Farm and south Wokingham developments.

5.6.33 In the 2026 Core Forecast, a further increase is shown on Peacock Lane westbound as well as the A322 Downshire Way westbound. Contrary to the AM peak, an increase is shown in both directions on the A329 west of Doncastle Roundabout with a corresponding reduction on Doncastle Road. This is a switching of trips caused by the introduction of signals at Doncastle Roundabout.

Forest Road to M3

5.6.34 There are some significant increases in the 2026 Reference Case along this corridor in the PM peak. The A3095 Church Road, north of Station roundabout, demonstrates a 91% increase in the southbound direction, in fact substantial increases are shown along the A322 towards Coral Reef junction. This is mainly due to the growth in trips generated by the Town Centre and Staff College developments, alongside an overall growth in through-trips.

5.6.35 In the 2026 Core Forecast, some further increases occur due to developments located to the north of the Town Centre, for example on Warfield Road and Forest Road, as well as the Crowthorne development sites which generate an increase in traffic flow eastbound on Nine Mile Ride. However, some links show a small reduction in flow, for example on Bagshot Road / Church Road where growth in traffic demand from developments is concentrated on other areas of the network.

Binfield Road to M3

5.6.36 On this corridor, Binfield Road experiences the greatest changes in flow in the 2026 Reference Case, with an increase of 179% in the southbound direction. Substantial increases are also shown on Foresters Way and the A331 north of the M3 in the northbound direction, reflecting the overall growth in traffic volumes both travelling through the network and generated by developments.

5.6.37 In the 2026 Core Forecast, increases are shown on the northbound links travelling away from the Town Centre, however reductions are shown on the A331 and Foresters Way approaching the Town Centre.

5.6.38 Figure 5.12 and Figure 5.13 illustrate the Base Year highway flows from the final validated PM peak Base Year assignment, around the town centre and on a wider scale.

Figure 5.12: PM Peak 2007 Base Year Flow – Town Centre

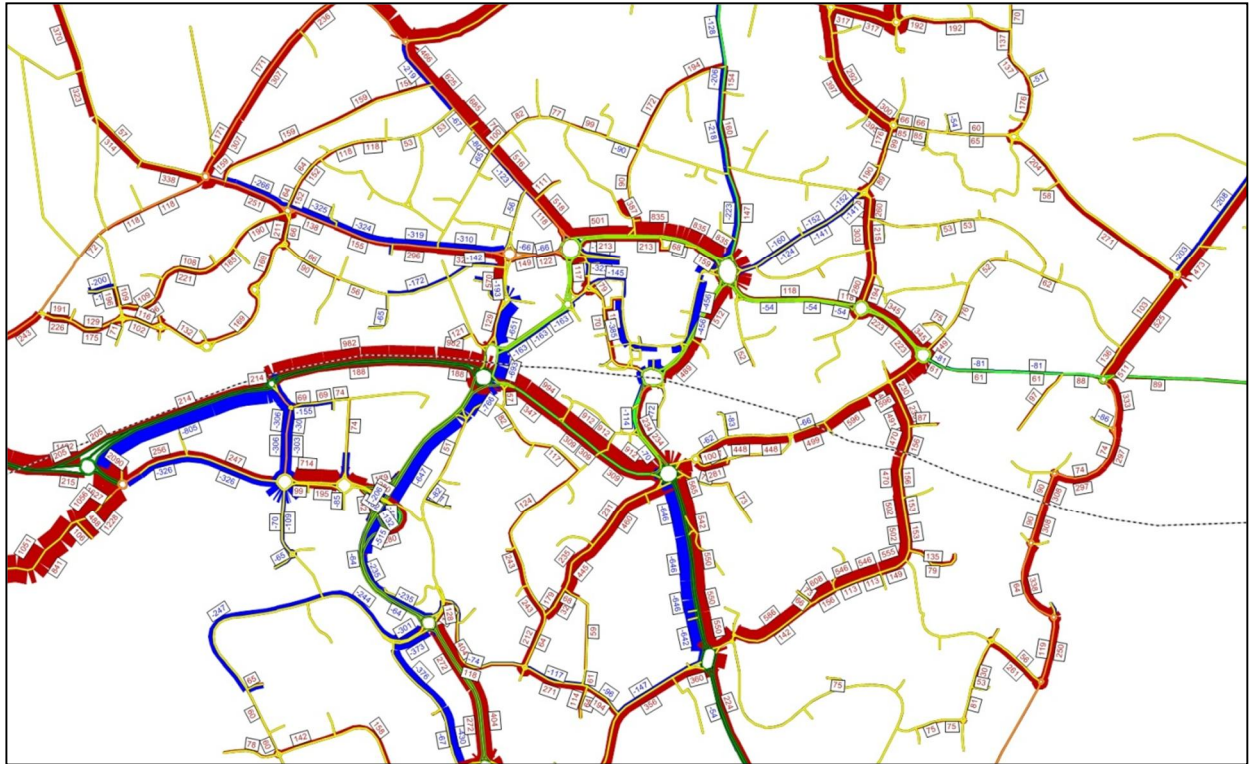


Figure 5.13: PM Peak 2007 Base Year Flow – Wider Area



5.6.39 Figure 5.14 and Figure 5.15 compare the PM peak 2026 Reference Case traffic flows with the Base Year, around the town centre and on a wider scale.

Figure 5.14: PM Peak 2026 Ref Case and 2007 Base Year Flow Comparison – Town Centre



5.6.40 Similarly to the AM peak, Figure 5.14 shows there are substantial increases in traffic flow around the new Peacock Farm junctions as a result of this development and developments in the south of Wokingham. There is also some switching of trips from the A3095 onto the A322 Downshire Way following improvements at the Twin Bridges gyratory. Other substantial flow increases are demonstrated on Ralph's Ride and Binfield Road / Millennium Way towards the Town Centre as a result of substantial developments in this area.

Figure 5.15: PM Peak 2026 Ref Case and 2007 Base Year Flow Comparison – Wider Area



5.6.1 Figure 5.15 shows there are large increases in traffic along the M3 westbound and on the M4, as well as on the A329(M) south of this junction. Significant increases are demonstrated in the Crowthorne area to the west of Bracknell resulting mainly from developments and infrastructure schemes in the Wokingham area, such as the Southern Distributor Road. Similarly to the AM peak, increases are reported around the Coppid Beech junction, being the main interchange between Wokingham and Bracknell.

5.6.2 Figure 5.16 and Figure 5.17 compare the PM peak 2026 Core Forecast traffic flows with the 2026 Reference Case, around the town centre and on a wider scale.

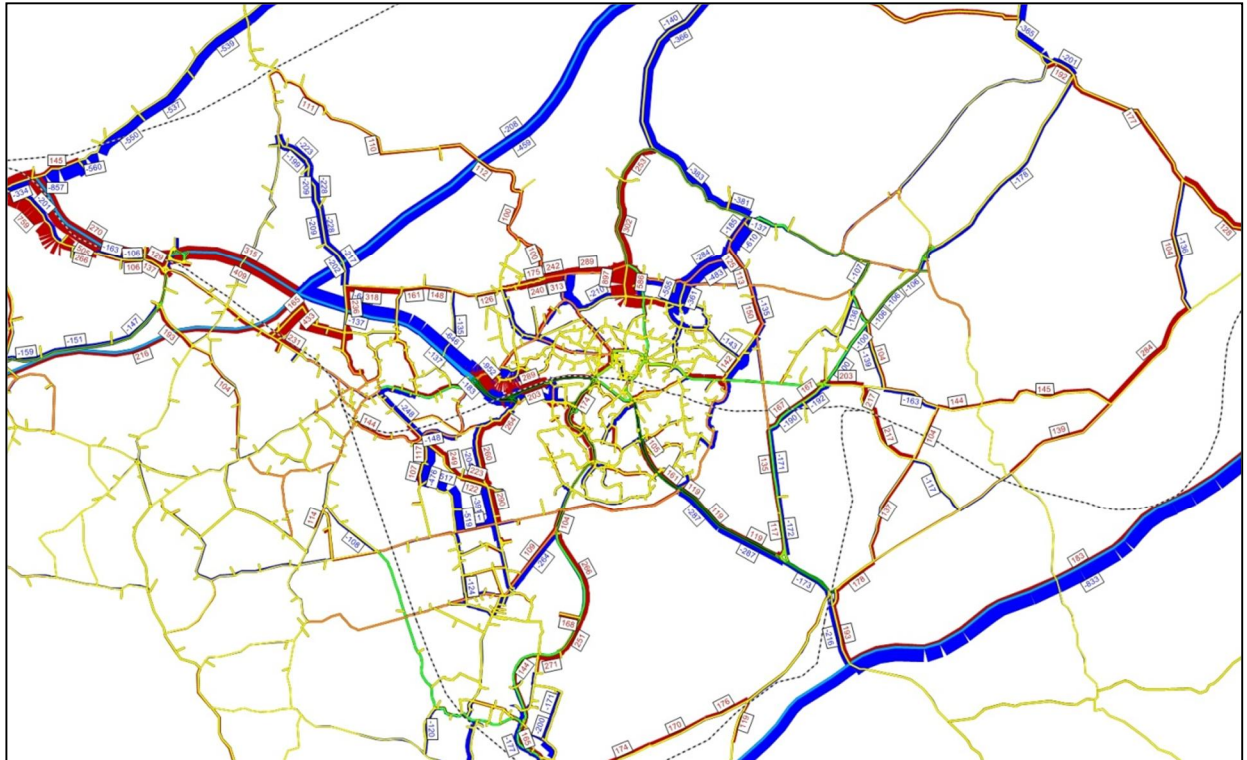
Figure 5.16: PM Peak 2026 Forecast and 2026 Ref Case Flow Comparison – Town Centre



5.6.3 Figure 5.16 shows some minor reductions in flow around the Town Centre in the PM peak, where traffic demand is concentrated on other areas of the network. For example, the introduction of the Amen Corner development leads to a switching of trips away from John Nike Way onto the new Amen Corner spine road.

5.6.4 There is also a reduction in traffic flow along Ralph's Ride and Jig's Lane, some of which is due to the more attractive alternative route provided to the north between Three Legged Cross and Harvest Ride.

Figure 5.17: PM Peak 2026 Forecast and 2026 Ref Case Flow Comparison – Wider Area



5.6.5 Similarly to the AM peak, Figure 5.17 shows some substantial trip redistributions in the PM peak, particularly to the north of the Town Centre around the site of the White Grove / Quelm Park development. The new link road provided between Three Legged Cross and Harvest Ride serves to reduce pressure on the eastern routes.

5.6.6 There are also notable reductions in traffic volumes on the M4 westbound / A329(M) southbound route towards Bracknell, and the M3 westbound. Similarly to the AM peak, these differences arise primarily from a reduction in trips towards the Bracknell and Crowthorne areas, from these routes. This indicates a higher proportion of shorter-distance return-from-work trips, generated by the introduction of more local workplace developments.

5.7 RATIO OF FLOW TO CAPACITY

5.7.1 In addition to the analysis of traffic flows on links as discussed in Section 5.6, the ratio of flow to capacity (RFC) was assessed to determine the impact on the road network in Bracknell Forest in terms of saturation of key links.

AM Peak RFC

5.7.2 Table 5.12 shows the comparison of RFC values on key links in the network in the AM peak. RFC plots are displayed in Figure 5.18 to Figure 5.23 demonstrating those links which are either nearing or over-capacity in the Base and Forecast Scenarios during the AM peak. In these figures, only links with an RFC of 70% or greater have RFC values displayed.

Table 5.12: AM Peak RFC on Key Links

| Location | | Dir | 2007 Base Year | 2026 Ref Case | | 2026 Core Forecast | | |
|--|--|-----|----------------|---------------|--------------|--------------------|--------------|--------------|
| | | | RFC | RFC | Diff from BY | RFC | Diff from BY | Diff from RC |
| M4 J10 - Coppid Beech | | | | | | | | |
| 1 | M4 (west of Junction 10) | EB | 60% | 56% | -4% | 64% | 4% | 8% |
| | | WB | 64% | 68% | 4% | 71% | 7% | 3% |
| 2 | M4 (east of Junction 10) | EB | 68% | 94% | 26% | 84% | 16% | -10% |
| | | WB | 72% | 76% | 4% | 74% | 2% | -2% |
| 3 | A329(M) (north of M4) | NB | 99% | 93% | -6% | 101% | 2% | 8% |
| | | SB | 94% | 100% | 6% | 102% | 8% | 2% |
| 4 | A329(M) (south of M4) | NB | 87% | 123% | 36% | 106% | 19% | -17% |
| | | SB | 82% | 86% | 4% | 82% | 0% | -4% |
| 5 | A329 London Rd (west of Coppid Beech) | EB | 73% | 30% | -43% | 31% | -42% | 1% |
| | | WB | 49% | 51% | 2% | 56% | 7% | 5% |
| 6 | B3408 London Road (east of Coppid Beech) | EB | 74% | 64% | -10% | 75% | 1% | 11% |
| | | WB | 52% | 81% | 29% | 76% | 24% | -5% |
| John Nike Way - Millennium Roundabout | | | | | | | | |
| 7 | John Nike Way | EB | 108% | 33% | -75% | 30% | -78% | -3% |
| | | WB | 36% | 64% | 28% | 6% | -30% | -58% |
| 8 | B3408 Wokingham Road (east of Turnpike Rd rab) | EB | 66% | 28% | -38% | 43% | -23% | 15% |
| | | WB | 35% | 60% | 25% | 45% | 10% | -15% |
| 9 | A329 Millennium Way | EB | 30% | 43% | 13% | 38% | 8% | -5% |
| | | WB | 28% | 41% | 13% | 40% | 12% | -1% |
| 10 | A329 (east of Millennium roundabout) | EB | 21% | 24% | 3% | 25% | 4% | 1% |
| | | WB | 35% | 25% | -10% | 23% | -12% | -2% |
| Peacock Lane - A322 Downshire Way | | | | | | | | |
| 11 | Peacock Lane (west of new junction) | EB | 58% | 104% | 46% | 134% | 76% | 30% |
| | | WB | 34% | 123% | 89% | 125% | 91% | 2% |
| 12 | A329 Berkshire Way (west of Doncastle Way) | EB | 70% | 62% | -8% | 38% | -32% | -24% |
| | | WB | 68% | 63% | -5% | 55% | -13% | -8% |
| 13 | A322 Downshire Way | EB | 74% | 94% | 20% | 91% | 17% | -3% |
| | | WB | 64% | 63% | -1% | 94% | 30% | 31% |
| Forest Road - M3 | | | | | | | | |
| 14 | Forest Road (east of A321 Twyford Road) | EB | 71% | 83% | 12% | 86% | 15% | 3% |
| | | WB | 29% | 2% | -27% | 2% | -27% | 0% |
| 15 | Warfield Road (north of Millennium roundabout) | NB | 44% | 47% | 3% | 54% | 10% | 7% |
| | | SB | 32% | 25% | -7% | 28% | -4% | 3% |
| 16 | A3095 Church Road (north of Station) | NB | 17% | 37% | 20% | 31% | 14% | -6% |

| Location | | Dir | 2007 Base Year | 2026 Ref Case | | 2026 Core Forecast | | |
|---------------------------|--|-----|----------------|---------------|--------------|--------------------|--------------|--------------|
| | | | RFC | RFC | Diff from BY | RFC | Diff from BY | Diff from RC |
| | roundabout) | SB | 18% | 14% | -4% | 15% | -3% | 1% |
| 17 | A3095 Bagshot Road (south of Station roundabout) | NB | 39% | 46% | 7% | 33% | -6% | -13% |
| | | SB | 38% | 17% | -21% | 18% | -20% | 1% |
| 18 | A322 Bagshot Road (south of Horse and Groom rab) | NB | 53% | 66% | 13% | 71% | 18% | 5% |
| | | SB | 34% | 38% | 4% | 49% | 15% | 11% |
| 19 | Nine Mile Ride (between A3095 and A322) | EB | 64% | 81% | 17% | 94% | 30% | 13% |
| | | WB | 69% | 99% | 30% | 102% | 33% | 3% |
| 20 | A322 (north of M3) | NB | 100% | 91% | -9% | 90% | -10% | -1% |
| | | SB | 101% | 108% | 7% | 102% | 1% | -6% |
| Binfield Road - M3 | | | | | | | | |
| 21 | Binfield Road (north of 3M roundabout) | NB | 21% | 59% | 38% | 49% | 28% | -10% |
| | | SB | 30% | 56% | 26% | 57% | 27% | 1% |
| 22 | A329 Skimped Hill Lane (south of 3M roundabout) | NB | 18% | 32% | 14% | 25% | 7% | -7% |
| | | SB | 23% | 15% | -8% | 17% | -6% | 2% |
| 23 | A329 Skimped Hill Lane (north of Twin Bridges) | NB | 35% | 18% | -17% | 27% | -8% | 9% |
| | | SB | 18% | 10% | -8% | 11% | -7% | 1% |
| 24 | A3095 (south of Twin Bridges) | NB | 47% | 48% | 1% | 52% | 5% | 4% |
| | | SB | 35% | 34% | -1% | 29% | -6% | -5% |
| 25 | A3095 Foresters Way (south of Bracknell Rd rab) | NB | 56% | 55% | -1% | 55% | -1% | 0% |
| | | SB | 39% | 57% | 18% | 50% | 11% | -7% |
| 26 | A331 (north of M3) | NB | 75% | 76% | 1% | 82% | 7% | 6% |
| | | SB | 86% | 108% | 22% | 84% | -2% | -24% |

Figure 5.18: 2007 Base Year AM Peak RFC Plot – Town Centre



Figure 5.19: 2007 Base Year AM Peak RFC Plot – Wider Area

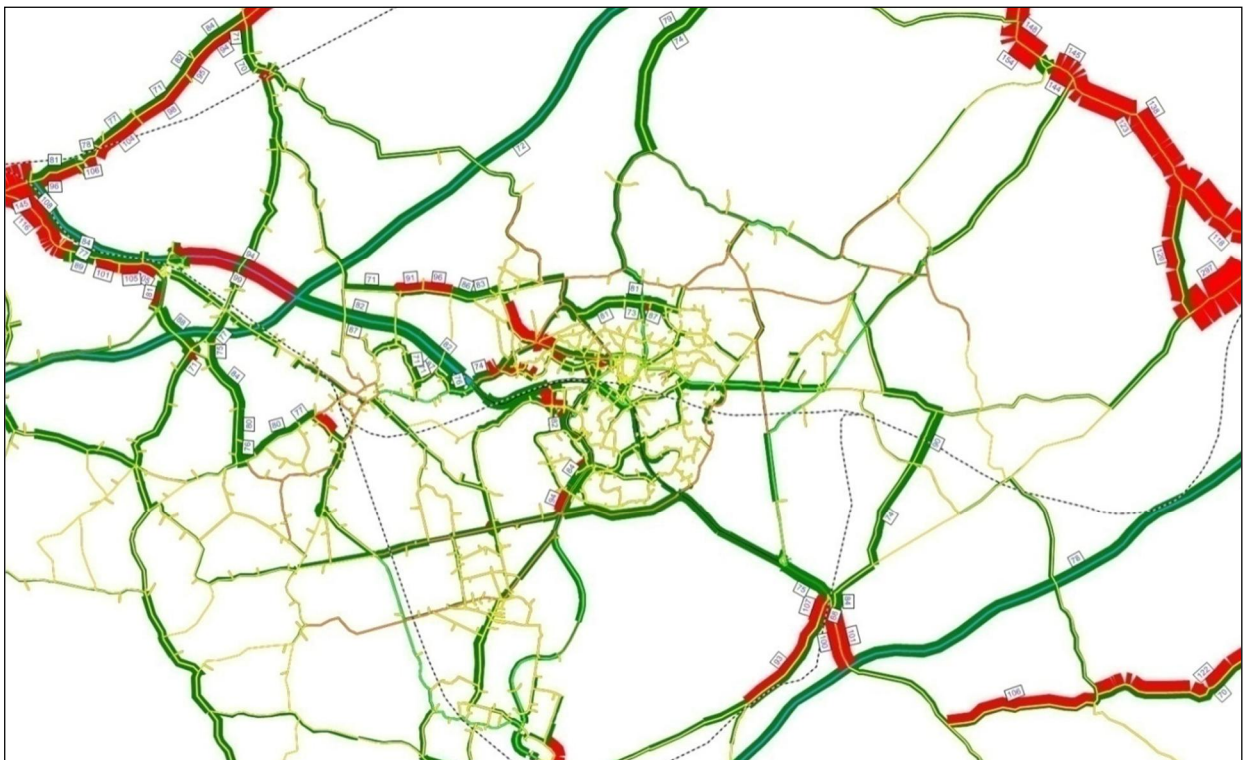


Figure 5.20: 2026 Reference Case AM Peak RFC Plot – Town Centre

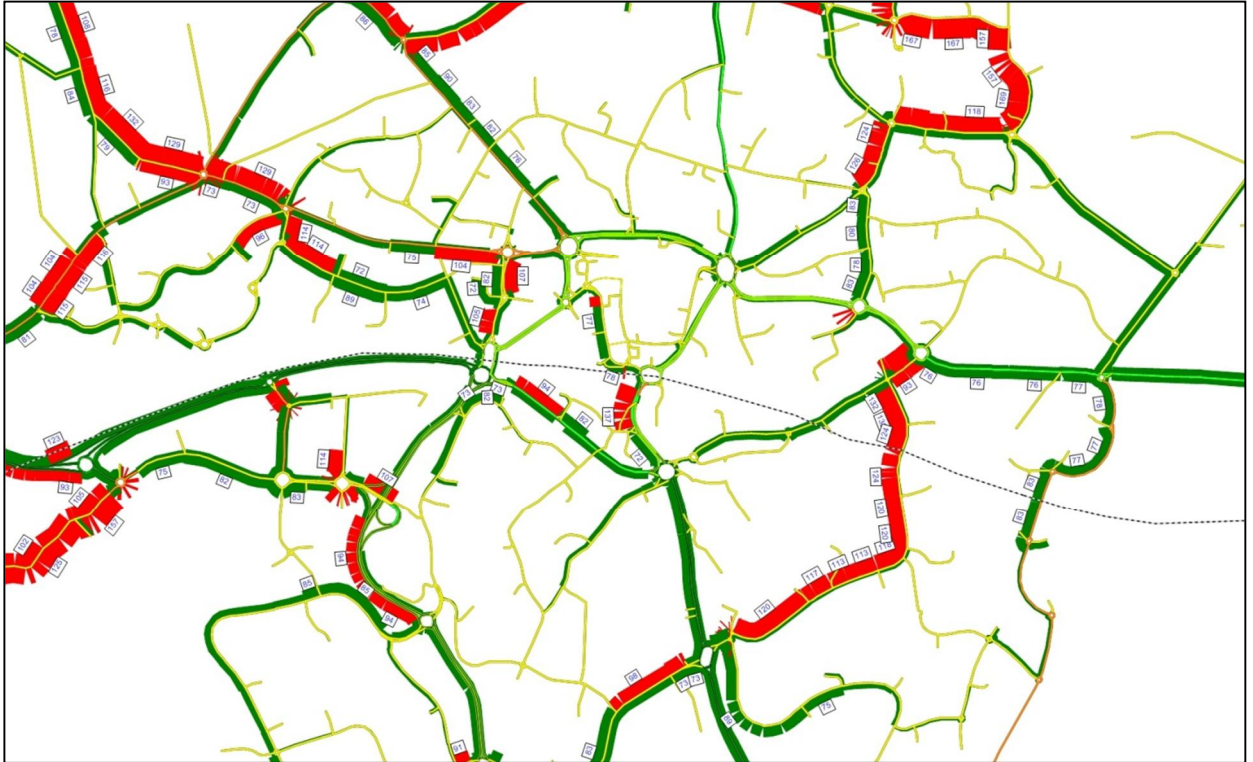


Figure 5.21: 2026 Reference Case AM Peak RFC Plot – Wider Area

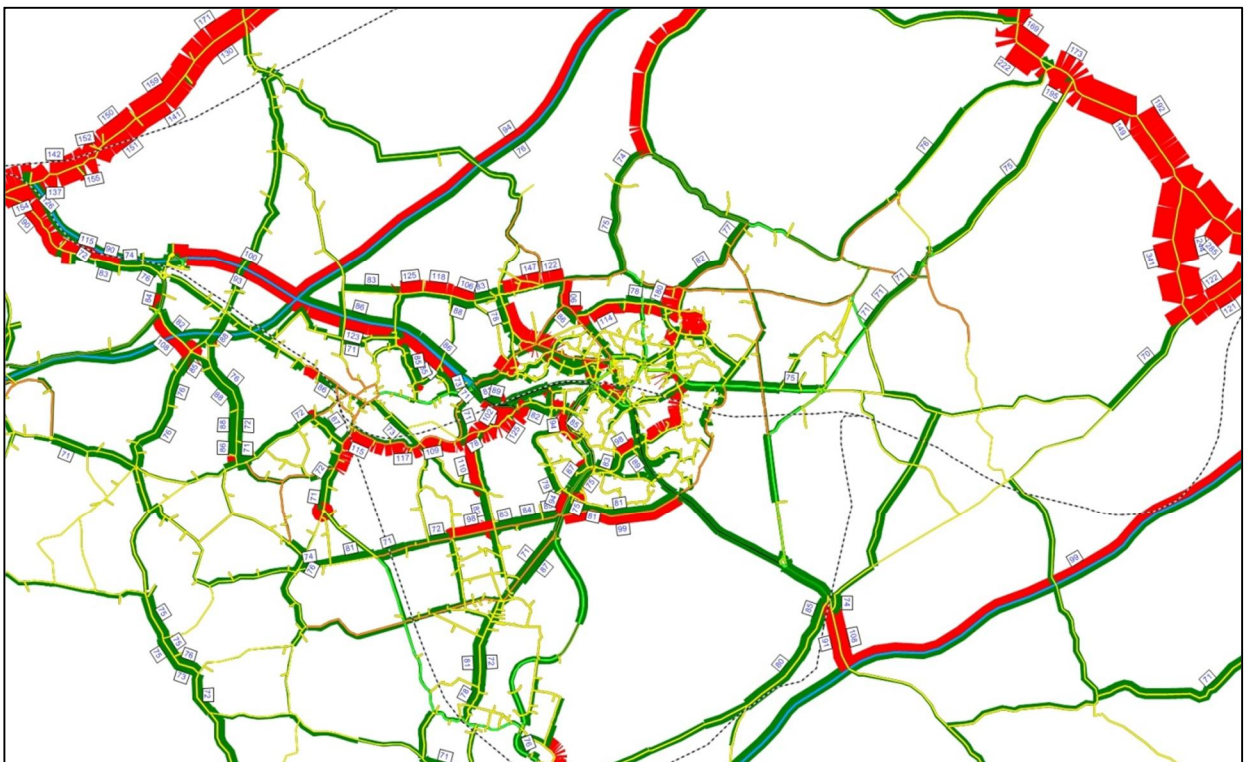


Figure 5.22: 2026 Core Forecast AM Peak RFC Plot – Town Centre

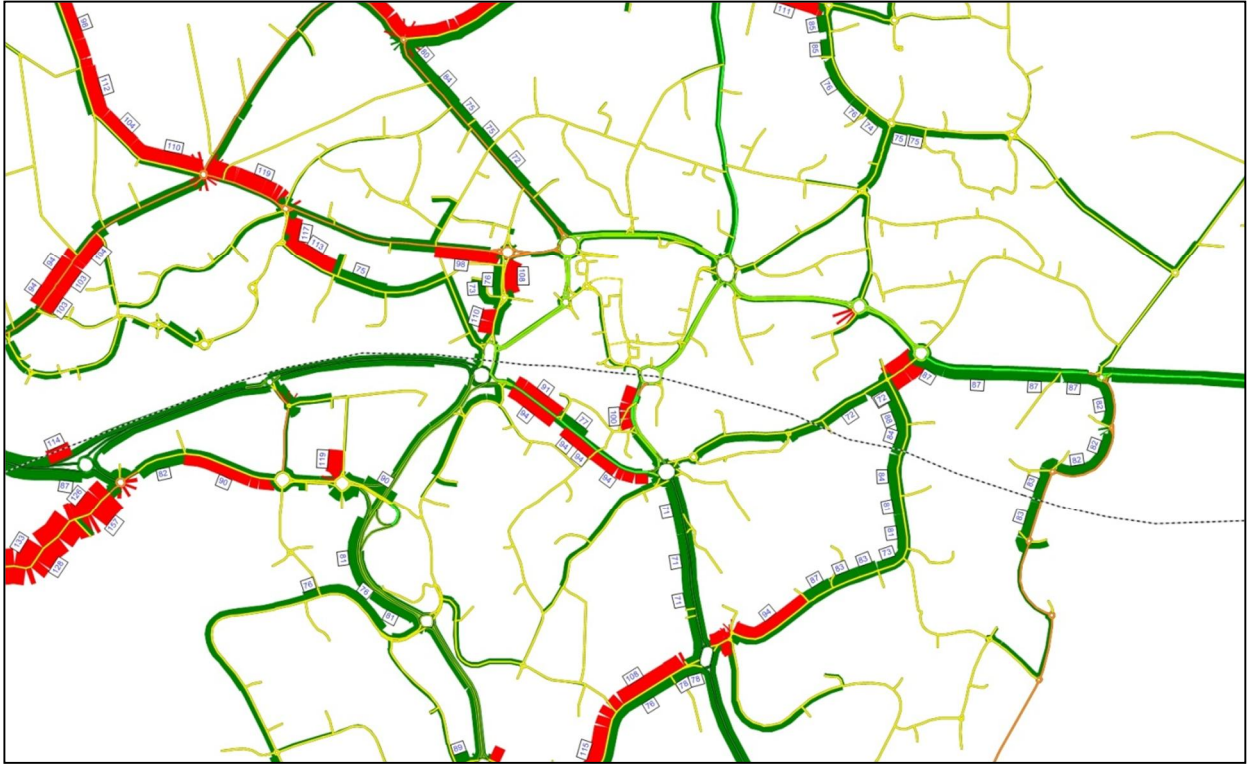
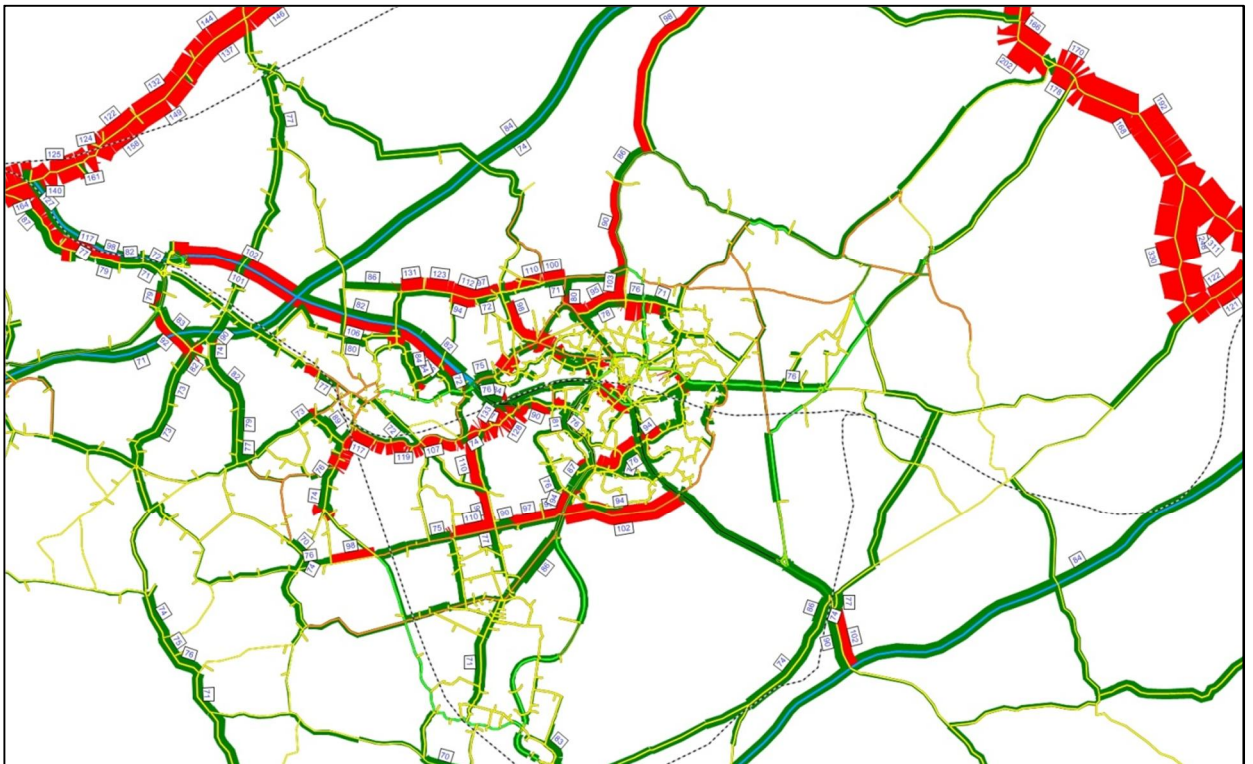


Figure 5.23: 2026 Core Forecast AM Peak RFC Plot – Wider Area



5.7.3 Figure 5.18 and Figure 5.19 illustrate a number of links which are already approaching or exceeding capacity in the Base Year. Particular links include:

- A329 London Road eastbound (west of Coppid Beech)
- B3408 Wokingham Road eastbound (west of John Nike Way)
- John Nike Way eastbound
- Doncastle Road northbound
- Popeswood Road
- A3095 northbound (north of Nine Mile Ride)
- A322 northbound and southbound (north of M3 Junction 3)

5.7.4 Figure 5.20 and Figure 5.21 demonstrate that the majority of links show an increase in RFC in the 2026 Reference Case in line with traffic flow increases, except on Doncastle Road northbound where trips have been routed away from this link. Of particular note are the A329(M) northbound which is over capacity north of Coppid Beech, and Nine Mile Ride westbound which is just over capacity between the Coral Reef and Golden Retriever junctions.

5.7.5 In the 2026 Core Forecast we see improvements in some parts of the network, including the A329(M) and Nine Mile Ride, although these are still over capacity.

PM Peak RFC

5.7.6 Table 5.13 shows the comparison of RFC values on key links in the network in the PM peak. RFC plots are displayed in Figure 5.24 to Figure 5.29 demonstrating those links which are either nearing or over-capacity in the Base and Forecast Scenarios during the PM peak. In these figures, only links with an RFC of 70% or greater have RFC values displayed.

Table 5.13: PM Peak RFC on Key Links

| Location | | Dir | 2007 Base Year | 2026 Ref Case | | 2026 Core Forecast | | |
|--|--|-----|----------------|---------------|--------------|--------------------|--------------|--------------|
| | | | RFC | RFC | Diff from BY | RFC | Diff from BY | Diff from RC |
| M4 J10 - Coppid Beech | | | | | | | | |
| 1 | M4 (west of Junction 10) | EB | 59% | 71% | 12% | 71% | 12% | 0% |
| | | WB | 75% | 80% | 5% | 83% | 8% | 3% |
| 2 | M4 (east of Junction 10) | EB | 73% | 79% | 6% | 76% | 3% | -3% |
| | | WB | 78% | 96% | 18% | 89% | 11% | -7% |
| 3 | A329(M) (north of M4) | NB | 82% | 83% | 1% | 92% | 10% | 9% |
| | | SB | 95% | 96% | 1% | 103% | 8% | 7% |
| 4 | A329(M) (south of M4) | NB | 82% | 87% | 5% | 84% | 2% | -3% |
| | | SB | 79% | 110% | 31% | 96% | 17% | -14% |
| 5 | A329 London Rd (west of Coppid Beech) | EB | 50% | 26% | -24% | 29% | -21% | 3% |
| | | WB | 74% | 79% | 5% | 78% | 4% | -1% |
| 6 | B3408 London Road (east of Coppid Beech) | EB | 44% | 51% | 7% | 59% | 15% | 8% |
| | | WB | 69% | 78% | 9% | 90% | 21% | 12% |
| John Nike Way - Millennium Roundabout | | | | | | | | |
| 7 | John Nike Way | EB | 28% | 48% | 20% | 42% | 14% | -6% |

| Location | | Dir | 2007 Base Year | 2026 Ref Case | | 2026 Core Forecast | | |
|--|--|-----|----------------|---------------|--------------|--------------------|--------------|--------------|
| | | | RFC | RFC | Diff from BY | RFC | Diff from BY | Diff from RC |
| | | WB | 83% | 106% | 23% | 41% | -42% | -65% |
| 8 | B3408 Wokingham Road (east of Turnpike Rd rab) | EB | 42% | 17% | -25% | 12% | -30% | -5% |
| | | WB | 73% | 84% | 11% | 91% | 18% | 7% |
| 9 | A329 Millennium Way | EB | 31% | 55% | 24% | 54% | 23% | -1% |
| | | WB | 26% | 32% | 6% | 31% | 5% | -1% |
| 10 | A329 (east of Millennium roundabout) | EB | 33% | 36% | 3% | 38% | 5% | 2% |
| | | WB | 28% | 18% | -10% | 18% | -10% | 0% |
| Peacock Lane - A322 Downshire Way | | | | | | | | |
| 11 | Peacock Lane (west of new junction) | EB | 21% | 122% | 101% | 109% | 88% | -13% |
| | | WB | 92% | 176% | 84% | 202% | 110% | 26% |
| 12 | A329 Berkshire Way (west of Doncastle Way) | EB | 64% | 139% | 75% | 52% | -12% | -87% |
| | | WB | 66% | 0% | -66% | 50% | -16% | 50% |
| 13 | A322 Downshire Way | EB | 92% | 150% | 58% | 151% | 59% | 1% |
| | | WB | 79% | 99% | 20% | 105% | 26% | 6% |
| Forest Road - M3 | | | | | | | | |
| 14 | Forest Road (east of A321 Twyford Road) | EB | 58% | 81% | 23% | 81% | 23% | 0% |
| | | WB | 61% | 24% | -37% | 55% | -6% | 31% |
| 15 | Warfield Road (north of Millennium roundabout) | NB | 45% | 32% | -13% | 34% | -11% | 2% |
| | | SB | 20% | 29% | 9% | 32% | 12% | 3% |
| 16 | A3095 Church Road (north of Station roundabout) | NB | 22% | 22% | 0% | 21% | -1% | -1% |
| | | SB | 16% | 30% | 14% | 32% | 16% | 2% |
| 17 | A3095 Bagshot Road (south of Station roundabout) | NB | 22% | 13% | -9% | 13% | -9% | 0% |
| | | SB | 62% | 38% | -24% | 37% | -25% | -1% |
| 18 | A322 Bagshot Road (south of Horse and Groom rab) | NB | 43% | 26% | -17% | 26% | -17% | 0% |
| | | SB | 54% | 69% | 15% | 70% | 16% | 1% |
| 19 | Nine Mile Ride (between A3095 and A322) | EB | 46% | 45% | -1% | 52% | 6% | 7% |
| | | WB | 78% | 95% | 17% | 92% | 14% | -3% |
| 20 | A322 (north of M3) | NB | 108% | 107% | -1% | 100% | -8% | -7% |
| | | SB | 98% | 96% | -2% | 102% | 4% | 6% |
| Binfield Road - M3 | | | | | | | | |
| 21 | Binfield Road (north of 3M roundabout) | NB | 39% | 49% | 10% | 59% | 20% | 10% |
| | | SB | 22% | 63% | 41% | 60% | 38% | -3% |
| 22 | A329 Skimped Hill Lane (south of 3M roundabout) | NB | 19% | 20% | 1% | 25% | 6% | 5% |
| | | SB | 20% | 24% | 4% | 19% | -1% | -5% |
| 23 | A329 Skimped Hill Lane (north of Twin Bridges) | NB | 15% | 16% | 1% | 22% | 7% | 6% |
| | | SB | 21% | 16% | -5% | 16% | -5% | 0% |
| 24 | A3095 (south of Twin Bridges) | NB | 29% | 29% | 0% | 30% | 1% | 1% |
| | | SB | 59% | 38% | -21% | 41% | -18% | 3% |
| 25 | A3095 Foresters Way (south of Bracknell Rd rab) | NB | 39% | 51% | 12% | 47% | 8% | -4% |
| | | SB | 73% | 54% | -19% | 69% | -4% | 15% |
| 26 | A331 (north of M3) | NB | 78% | 88% | 10% | 80% | 2% | -8% |
| | | SB | 68% | 65% | -3% | 74% | 6% | 9% |

Figure 5.24: 2007 Base Year PM Peak RFC Plot – Town Centre



Figure 5.25: 2007 Base Year PM Peak RFC Plot – Wider Area

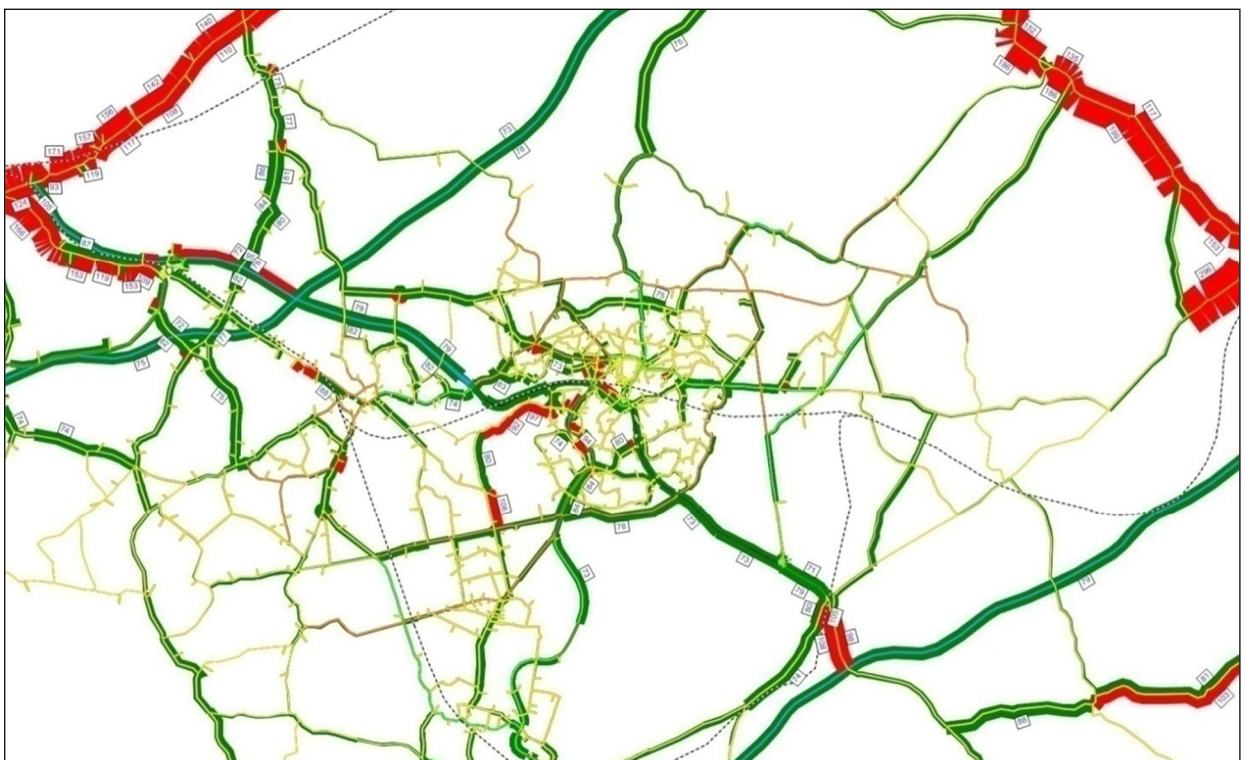


Figure 5.26: 2026 Reference Case PM Peak RFC Plot – Town Centre

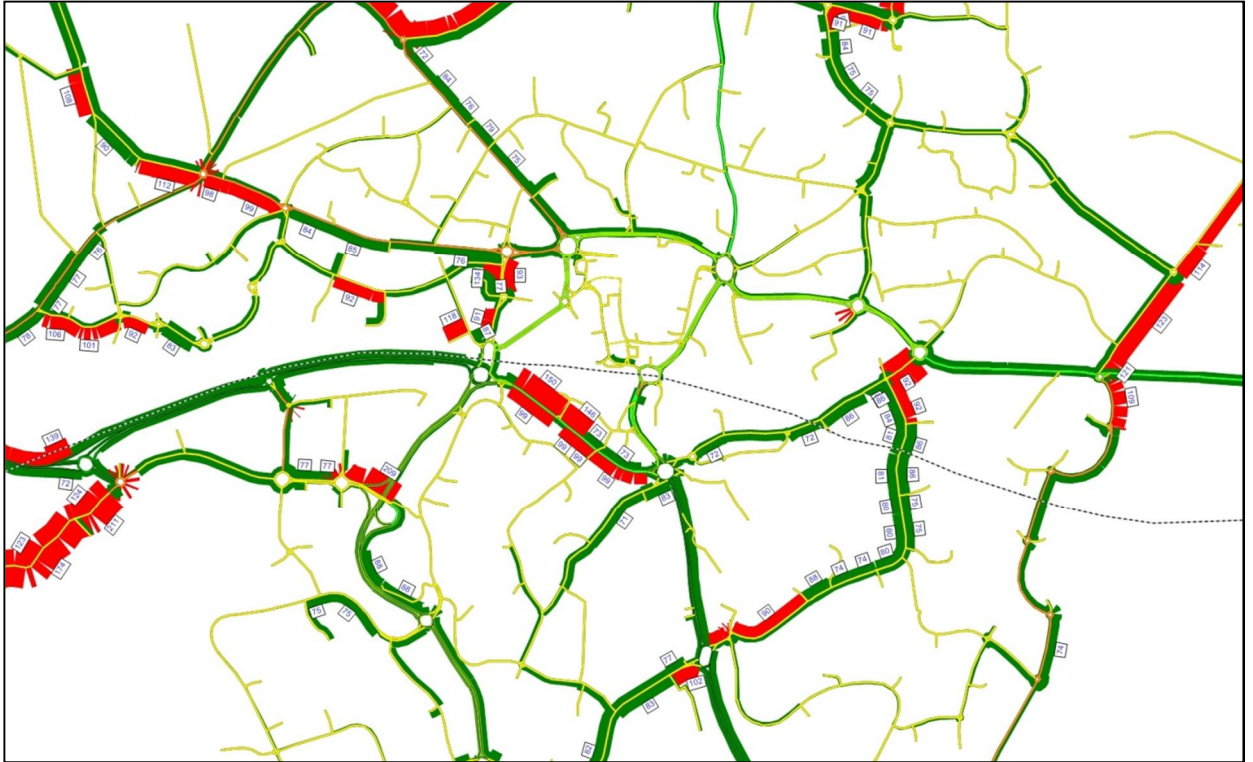


Figure 5.27: 2026 Reference Case PM Peak RFC Plot – Wider Area



Figure 5.28: 2026 Core Forecast PM Peak RFC Plot – Town Centre

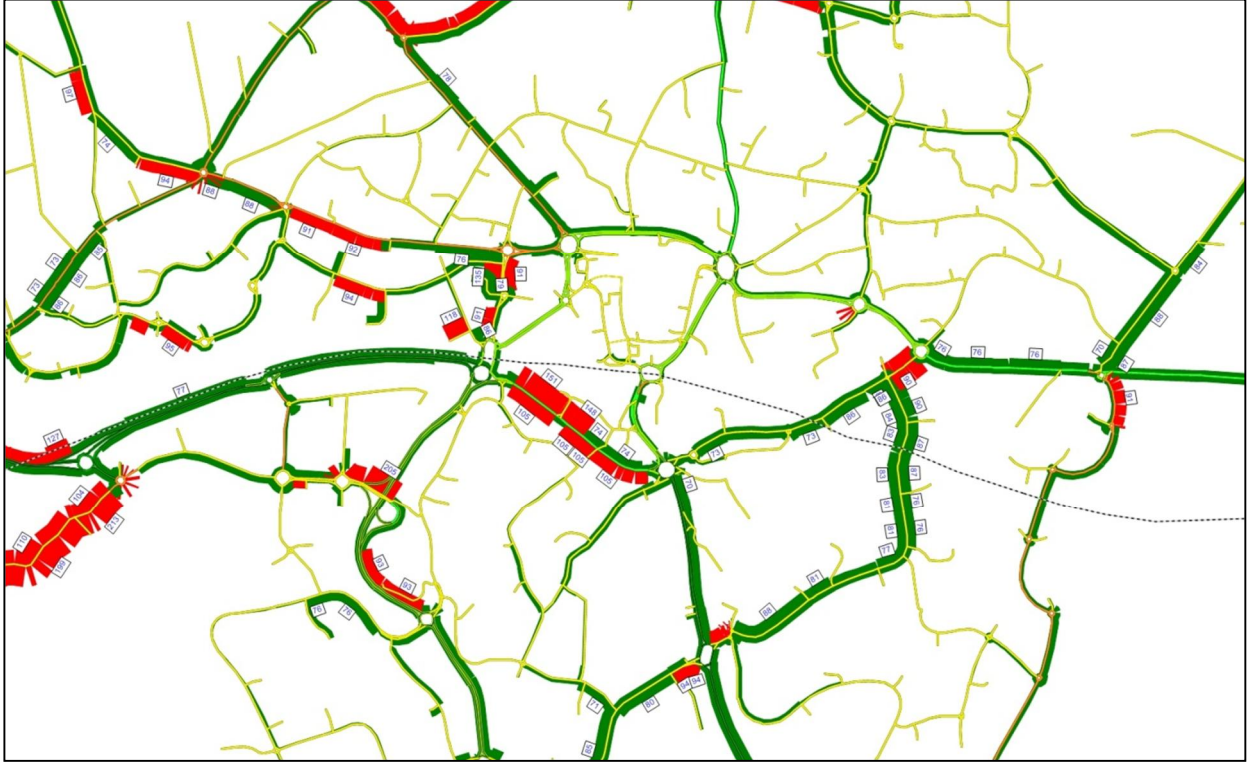


Figure 5.29: 2026 Core Forecast PM Peak RFC Plot – Wider Area



5.7.7 Figure 5.24 and Figure 5.25 illustrate a number of links which are already approaching or exceeding capacity in the Base Year. Particular links include:

- Peacock Lane westbound
- Old Wokingham Road southbound
- A322 Downshire Way eastbound
- A3095 Mill Lane junction with Ellesfield Avenue
- A322 northbound and southbound (north of M3 Junction 3)

5.7.8 Several links show an increase in RFC in the 2026 Reference Case in line with traffic flow increases, except on Doncastle Road northbound where trips have been routed away from this link. Of particular note are the A322 Downshire Way, which is increased in both directions, and Old Wokingham Road / Easthampstead Road northbound towards Wokingham which is pushed over capacity in 2026. Nine Mile Ride westbound, between the Coral Reef and Golden Retriever junctions, also approaches capacity and Bracknell Road, south of the junction with Foresters Way, is at 106% RFC.

5.7.9 In the 2026 Core Forecast the majority of links are improved in line with flow changes. The A329(M), Old Wokingham Road, the A322 Downshire Way and Nine Mile Ride are particular cases where RFC is reduced in this scenario, in comparison with the Reference Case.

5.8 JOURNEY TIMES

5.8.1 A number of core journey time routes traversing the Bracknell highway network have been put forward by Bracknell Forest Council (BFC) for assessment in all modelled scenarios, including the 2007 Base Year. A plan of the assessed routes is shown in Figure 5.30 and they are:

- Route 1: Coppid Beech to Swinley Bottom Gyratory
- Route 2: Coppid Beech to A329 London Rd / A322 Windsor Rd
- Route 3: A3095 Foresters Way / Bracknell Rd to 3M Roundabout
- Route 4: Horse and Groom to A3095 Maidenhead Rd / A330 Ascot Rd
- Route 5: A321 Lower Wokingham Rd / Duke's Ride to A321 Rackstraw Junction (via Crowthorne High St / Foresters Way)
- Route 6: A329(M) (Doncastle Roundabout) to A4 Sutton Seeds
- Route 7: A321 Lower Wokingham Rd / Nine Mile Ride to Baldocks Roundabout

AM Peak Journey Times

5.8.2 A comparison of the modelled journey times output for each scenario is shown in Table 5.14 for the AM peak. Each route is displayed graphically in Figure 5.31 to Figure 5.44.

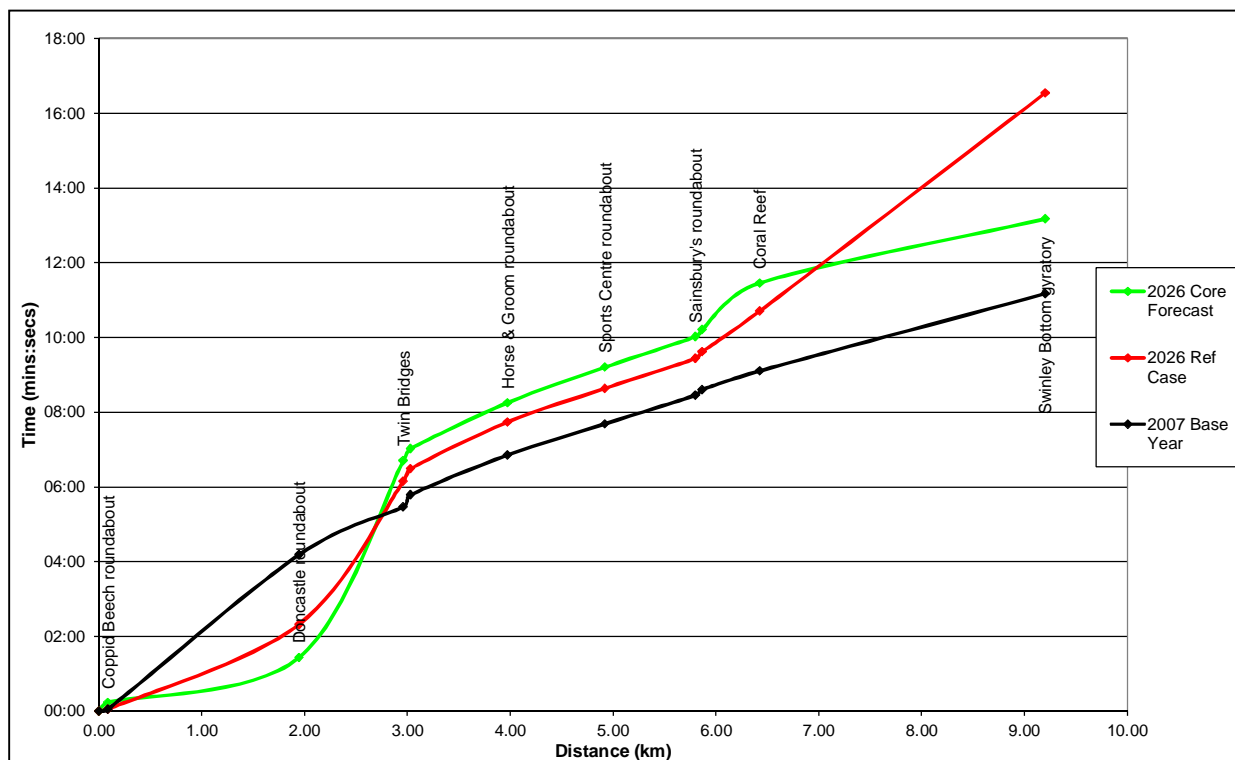
Table 5.14: Journey Time Summary - AM Peak

| Route | Dir | 2007 Base Year | 2026 Ref Case | 2026 Core Forecast | |
|--|-----|----------------|---------------|--------------------|-------------|
| | | JT (mm:ss) | JT (mm:ss) | JT (mm:ss) | % Diff RC |
| 1: Coppid Beech to Swinley Bottom Gyratory | S | 11:10 | 16:32 | 13:10 | -20% |
| | N | 13:35 | 18:50 | 19:54 | 6% |
| 2: Coppid Beech to A329 London Rd / A322 Windsor Rd | E | 12:34 | 20:15 | 18:01 | -11% |
| | W | 13:42 | 16:59 | 18:04 | 6% |
| 3: A3095 Foresters Way / Bracknell Rd to 3M Roundabout | S | 06:37 | 10:18 | 11:05 | 8% |
| | N | 07:11 | 11:02 | 09:17 | -16% |
| 4: Horse and Groom to A3095 Maidenhead Rd / A330 Ascot Rd | S | 09:07 | 13:01 | 10:43 | -18% |
| | N | 09:22 | 17:31 | 11:30 | -34% |
| 5: A321 Lower Wokingham Rd / Duke's Ride to A321 Rackstraw Junction (via Crowthorne High St / Foresters Way) | CW | 10:09 | 12:23 | 11:18 | -9% |
| | ACW | 10:17 | 13:06 | 12:21 | -6% |
| 6: A329(M) (Doncastle Roundabout) to A4 Sutton Seeds | S | 18:56 | 12:40 | 10:28 | -17% |
| | N | 15:45 | 26:47 | 17:54 | -33% |
| 7: A321 Lower Wokingham Rd / Nine Mile Ride to Baldocks Roundabout | S | 16:26 | 28:42 | 24:29 | -15% |
| | N | 17:02 | 20:34 | 24:06 | 17% |
| Average | | | | | -10% |

5.8.3 Table 5.14 demonstrates that, in comparison with the 2026 Reference Case, the Core Forecast provides an overall reduction in journey time of 10% across the key routes measured in the AM peak, with the majority of routes experiencing a reduction. Detailed descriptions of each route are provided with the graphs in Figure 5.31 to Figure 5.44.

5.8.4 It should be noted that adaptive signal control systems such as MOVA and SCOOT are currently delivering proven benefits across many junctions in the UK and can potentially improve the efficiency of junction operation in Bracknell, over and above the modelled results which are based on fixed signal operation. An improvement in delays of around 12% - 27% (over good fixed time plans) could be achieved which would reduce journey times across the Borough further (TAL 4/95).

Figure 5.31: AM Peak Journey Time - Route 1 - Southbound

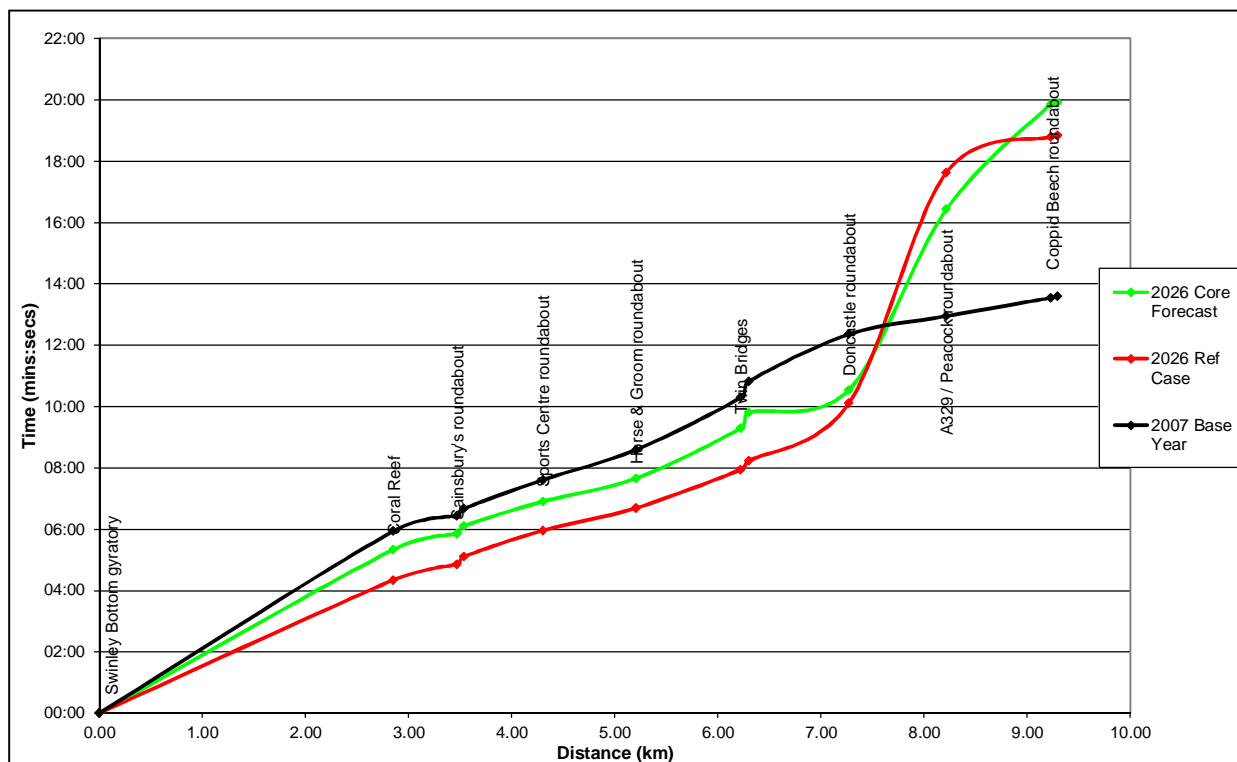


5.8.5 Route 1 southbound demonstrates a reduction in delay at Doncastle roundabout in the 2026 Reference Case, compared to the 2007 Base Year, as a result of reduced traffic demand at this junction following introduction of the new Peacock Farm roundabouts. There is however an increase in delay at the downstream Coral Reef and Swinley Bottom junctions, with the substantial increase in traffic demand on this route.

5.8.6 There is shown to be an increase in delay at the Twin Bridges gyratory in the 2026 Core Forecast, primarily due to a significant increase in traffic demand through this junction; however the improvements to Swinley Bottom gyratory serve to reduce delays at this junction.

5.8.7 The overall resultant journey time from Coppid Beech to Swinley Bottom is 20% lower in the 2026 Core Forecast than the Reference Case, although there are likely to be benefits, in terms of delay reduction, in implementing SCOOT or MOVA control at several of the signalised junctions along this key corridor – particularly Twin Bridges and Horse and Groom.

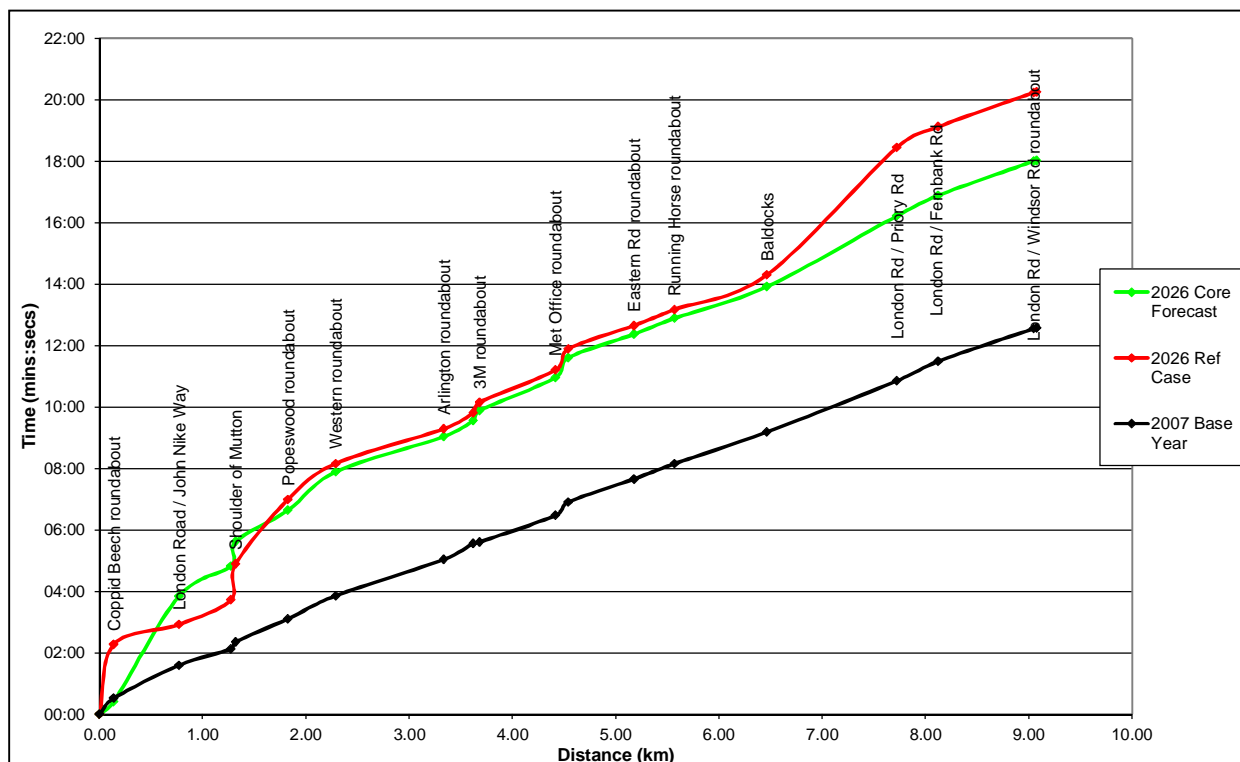
Figure 5.32: AM Peak Journey Time - Route 1 - Northbound



5.8.8 Route 1 northbound demonstrates a reduction in journey time from Swinley Bottom up to Doncastle roundabout in the 2026 Reference Case, compared to the 2007 Base Year, as a result of improvements at the Horse and Groom and Sports Centre junctions and reduced traffic demand at Coral Reef. However a significant increase in delay is shown from Twin Bridges up to Coppid Beech.

5.8.9 With the increase in northbound flow approaching Coral Reef in the 2026 Core Forecast, the journey time reflects this. However a substantial improvement is shown approaching the A329 / Peacock Farm roundabout with the reduction in flow on this link, followed by an increase approaching Coppid Beech roundabout. The overall resultant journey time from Swinley Bottom to Coppid Beech is 6% higher in the 2026 Core Forecast than in the Reference Case; similarly to the southbound direction, additional gains may be achieved through the use of SCOOT / MOVA at signalised junctions along this corridor, yielding further reductions in journey time.

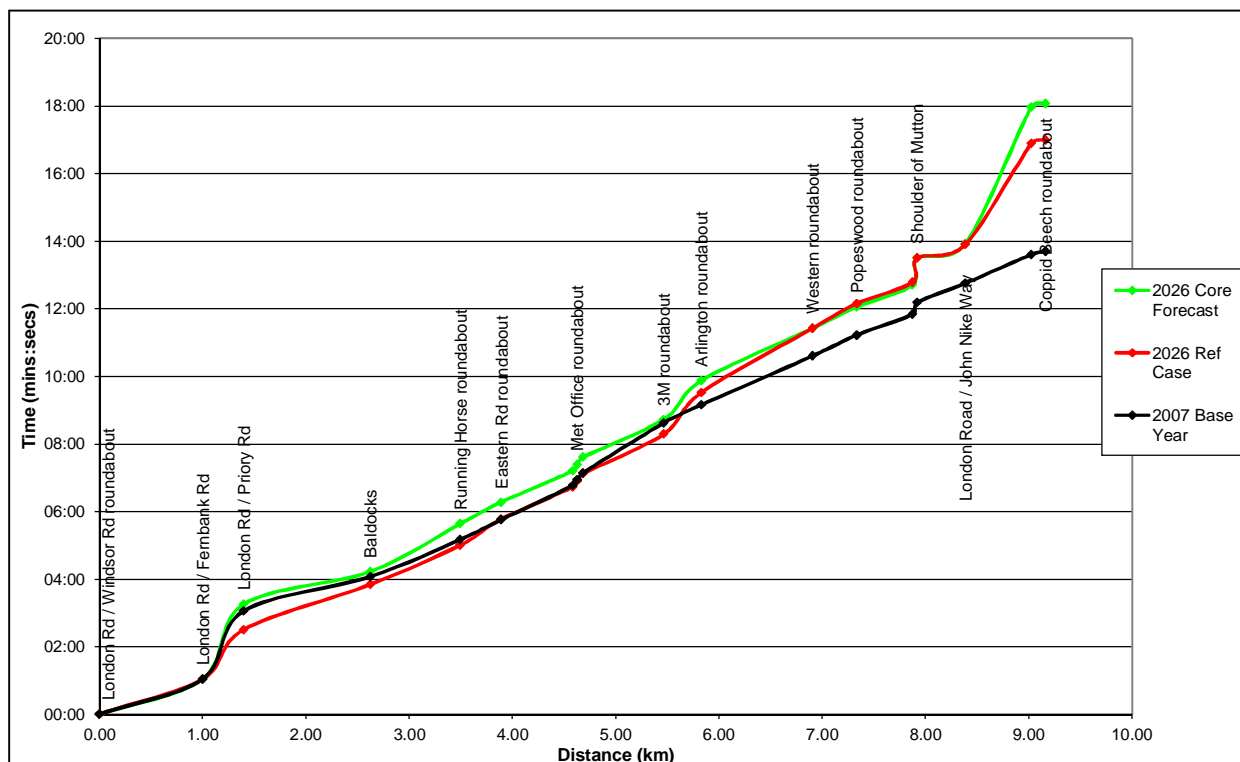
Figure 5.33: AM Peak Journey Time - Route 2 - Eastbound



5.8.10 Route 2 eastbound demonstrates an increase in journey time across the Coppid Beech roundabout in the 2026 Reference Case. In the Core Forecast Coppid Beech is improved, however the addition of a signalised junction on London Road with the Amen Corner spine road serves to increase the journey time in this scenario.

5.8.11 Reduced delay at the London Road / Priory Road junction in the Core Forecast scenario, resulting from a reduction in traffic demand, means that the overall journey time from Coppid Beech to London Road / Windsor Road is 11% lower in than in the Reference Case.

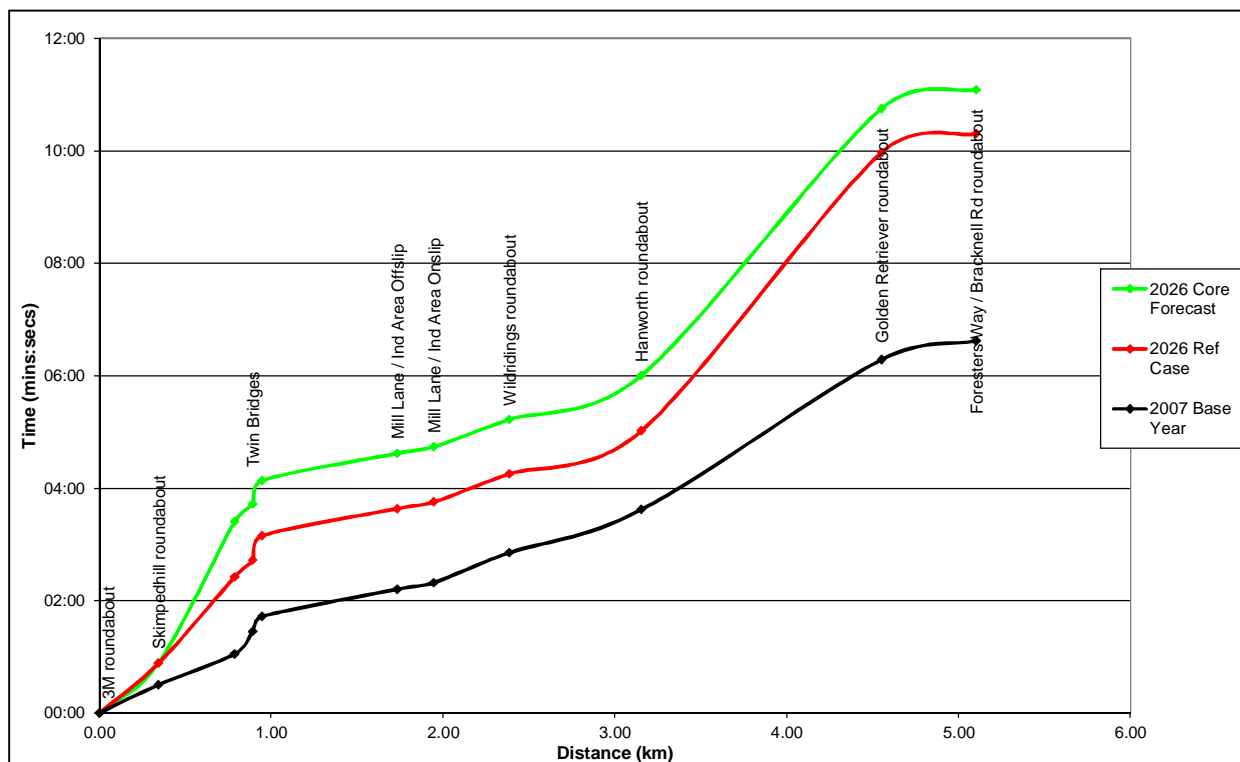
Figure 5.34: AM Peak Journey Time - Route 2 - Westbound



5.8.12 Route 2 westbound demonstrates very little change in journey time between all scenarios from London Road / Windsor Road up to the 3M roundabout. After this point gradual increases in delay are experienced, above the 2007 Base year, particularly approaching Western roundabout and Coppid Beech. The journey time along London Road is higher in the 2026 Core Forecast compared to the Reference Case because of the additional signalised junction introduced at the Amen Corner spine road.

5.8.13 The overall journey time from London Road / Windsor Road to Coppid Beech roundabout is 6% higher in the 2026 Core Forecast than in the Reference Case.

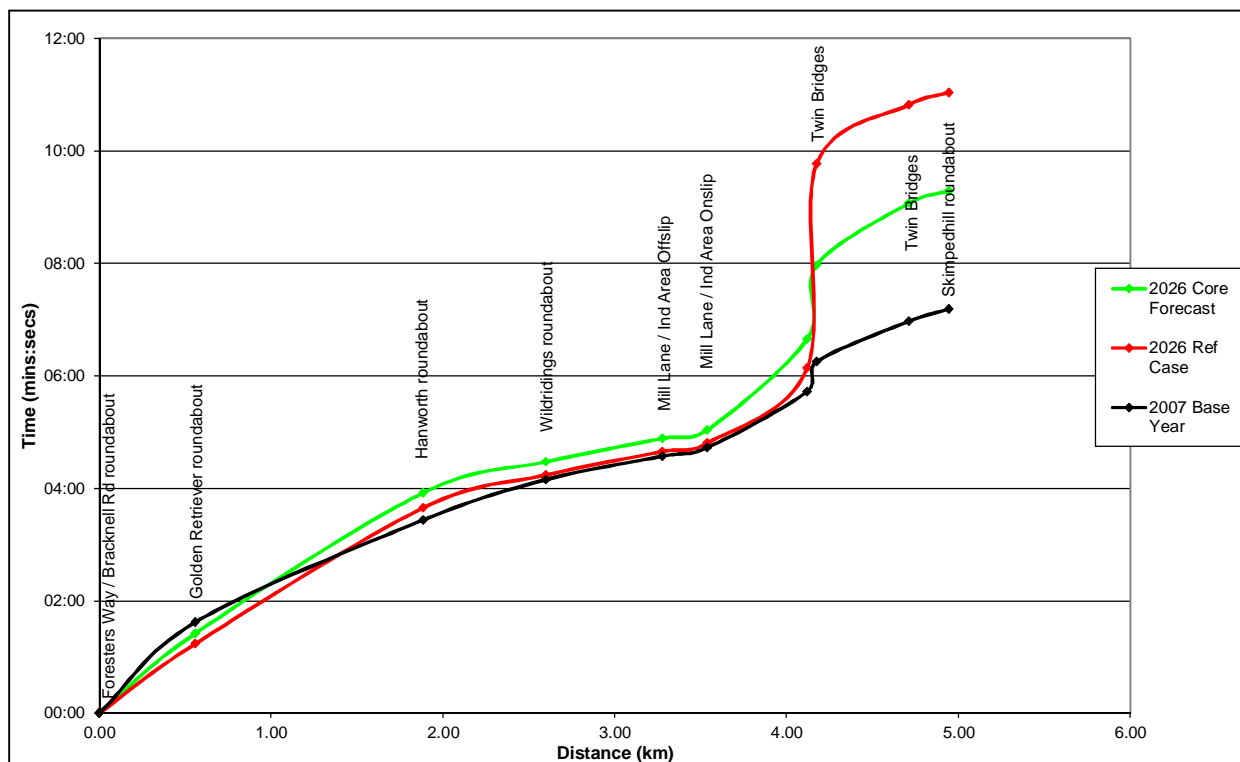
Figure 5.35: AM Peak Journey Time - Route 3 - Southbound



5.8.14 Route 3 southbound demonstrates a slight increase in journey time at the Twin Bridges gyratory, between the 2026 Reference Case and Core Forecast scenarios, due to an increase in traffic demand through the junction. Small gains are achieved however at the Golden Retriever roundabout, from reduced flow on this route.

5.8.15 The resultant overall journey time, from the 3M roundabout to the Foresters Way / Bracknell Road roundabout is 8% higher in the 2026 Core Forecast than in the Reference Case. There are likely to be further benefits, in terms of delay reduction, with the implementation of SCOOT or MOVA control at signalised junctions such as Twin Bridges, as highlighted in the route 1 analysis (5.8.7).

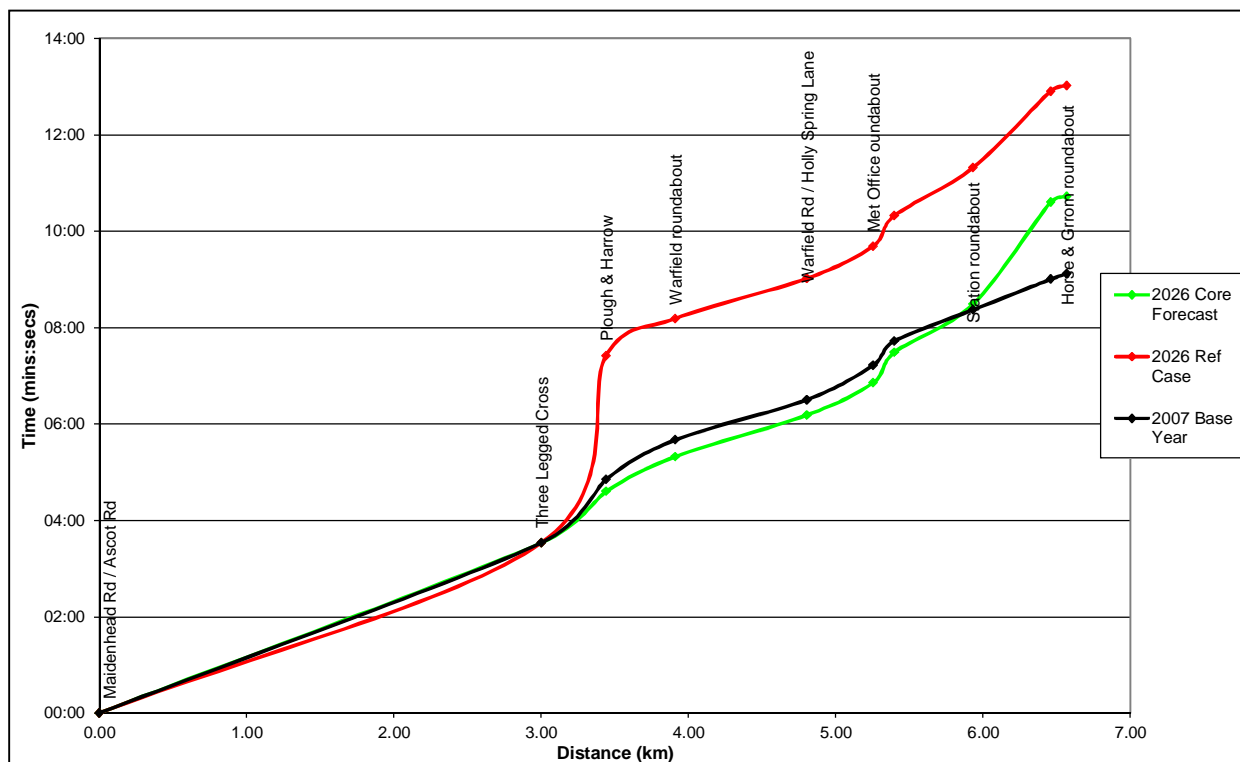
Figure 5.36: AM Peak Journey Time - Route 3 - Northbound



5.8.16 Route 3 northbound demonstrates an increase in journey time between the Golden Retriever and Hanworth roundabouts due to increased delay at the latter junction in the 2026 Reference Case. Delays are also significantly increased at Twin Bridges, although these are reduced in the 2026 Core Forecast scenario.

5.8.17 The resultant overall journey time, from the Foresters Way / Bracknell Road roundabout to the 3M roundabout, is 16% lower in the 2026 Core Forecast than in the Reference Case. Similarly to the northbound direction, the use of SCOOT or MOVA is likely to enhance the efficiency of signalised junctions along this corridor, reducing delays and providing further improvements to journey time reliability.

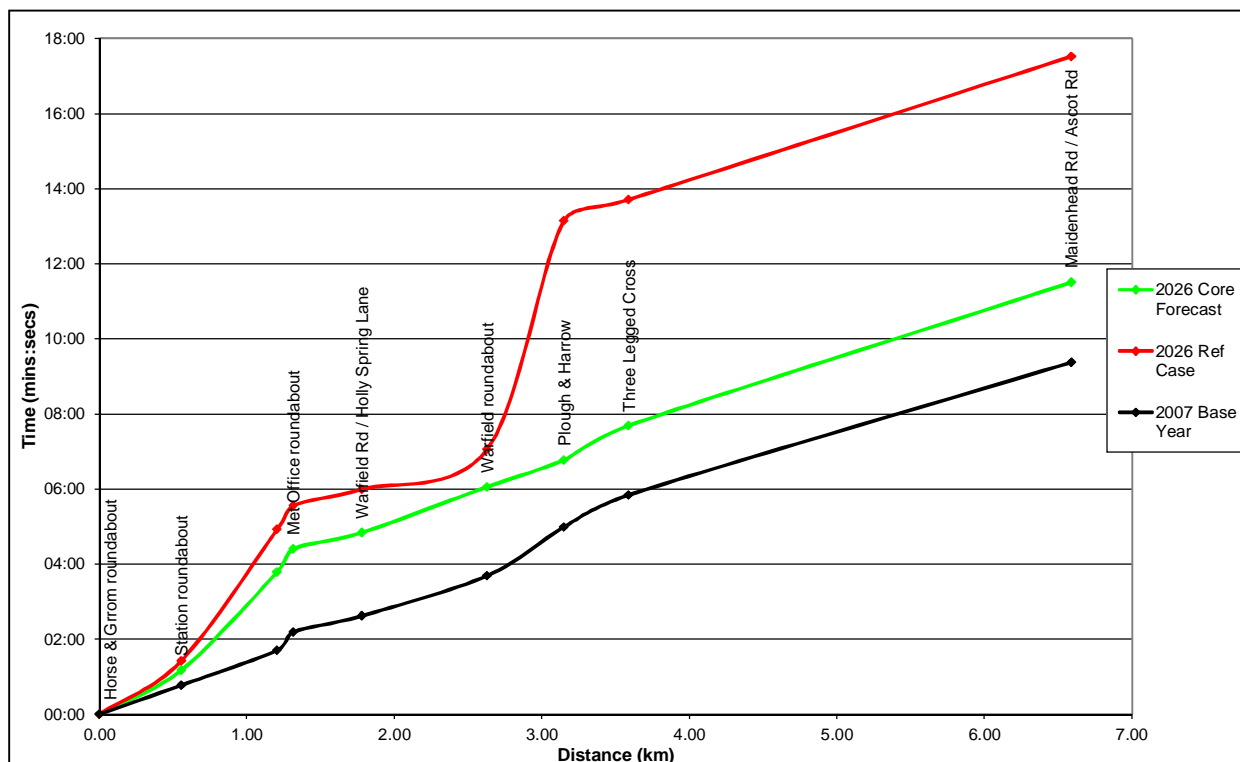
Figure 5.37: AM Peak Journey Time - Route 4 - Southbound



5.8.18 Route 4 southbound demonstrates a substantial increase in delay at the Plough and Harrow junction in the 2026 Reference Case due to signalisation of this junction and increased traffic demand on the conflicting movement. Delays are also increased at the Horse and Groom roundabout following signalisation of this junction. In the Core Forecast scenario, traffic demand at the Plough and Harrow junction is significantly reduced with the inclusion of the parallel north-south link road, so journey times through this section are consequently improved.

5.8.19 The overall journey time from Maidenhead Road / Ascot Road to the Horse and Groom roundabout is consequently 18% lower in the 2026 Core Forecast than in the Reference Case.

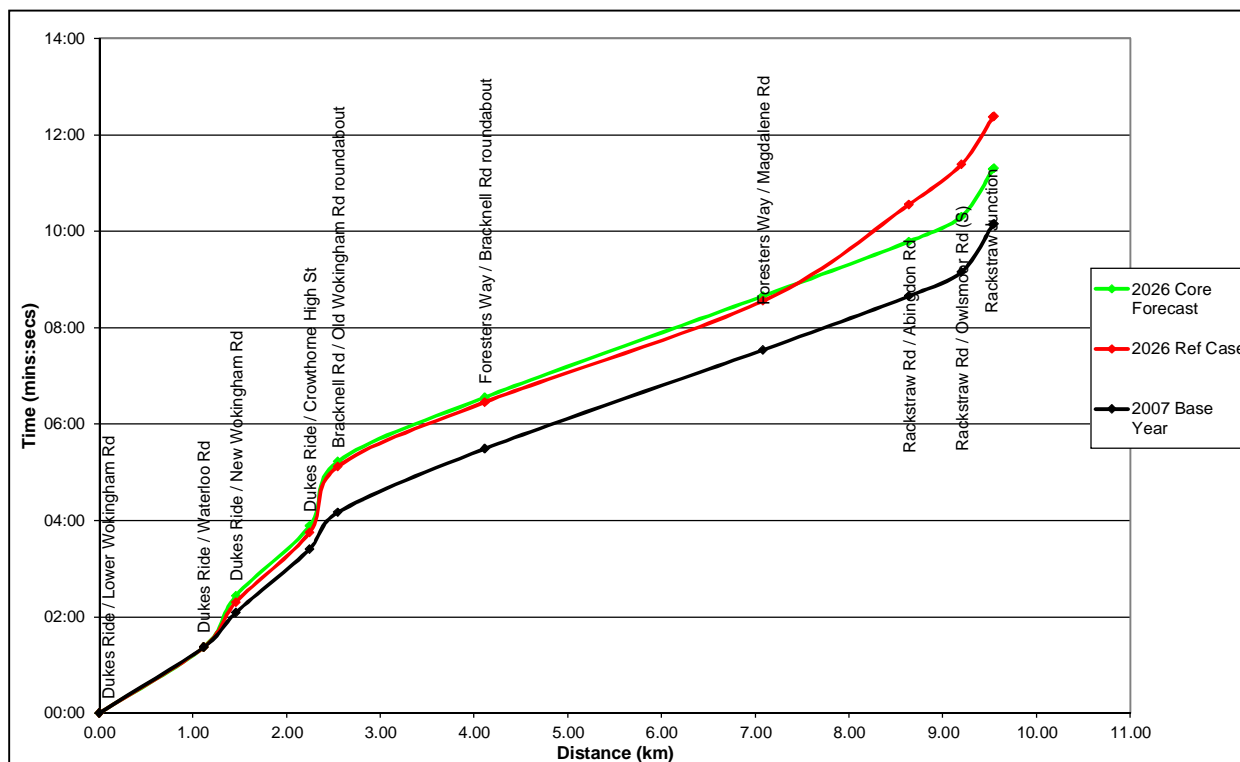
Figure 5.38: AM Peak Journey Time - Route 4 - Northbound



5.8.20 Route 4 northbound demonstrates a reasonable increase in delay at the Met Office roundabout in the 2026 Reference Case, compared to the 2007 Base Year, which follows an increase in traffic demand through this junction. There is also an increase in delay at the Plough and Harrow junction which is signalled in the Forecast Scenarios. The 2026 Core Forecast demonstrates a reduction in journey time between the Horse and Groom and Met Office roundabouts, from a reduction in traffic flow, as well as reduced delay at the Plough and Harrow due to the alternative link road provided to the west.

5.8.21 The overall journey time from the Horse and Groom roundabout to Maidenhead Road / Ascot Road is consequently 34% lower in the 2026 Core Forecast than in the Reference Case.

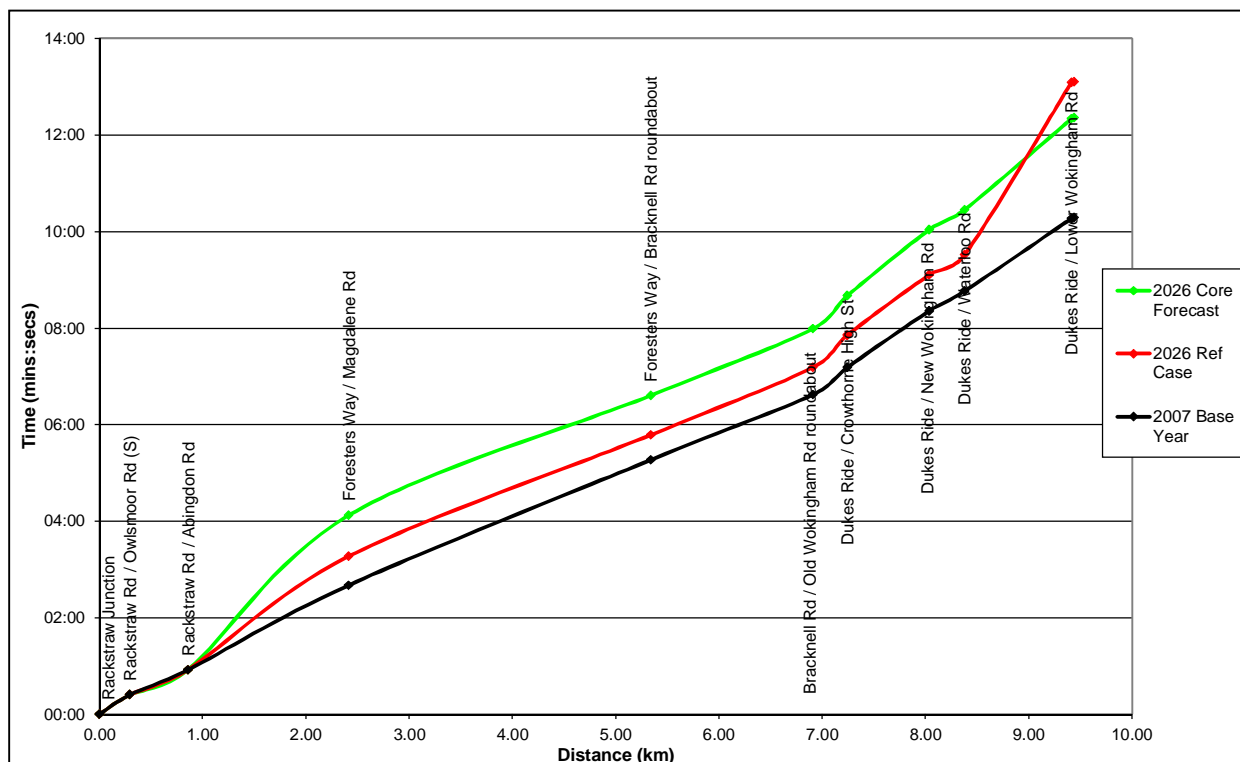
Figure 5.39: AM Peak Journey Time - Route 5 - Clockwise



5.8.22 A reduction in delay is shown at several junctions along Foresters Way / Rackstraw Road in the 2026 Core Forecast compared to the Reference Case, due to reduced traffic demand on this route.

5.8.23 The overall journey time from Duke's Ride / Lower Wokingham Road to the Rackstraw Junction is 9% lower in the 2026 Core Forecast than in the Reference Case.

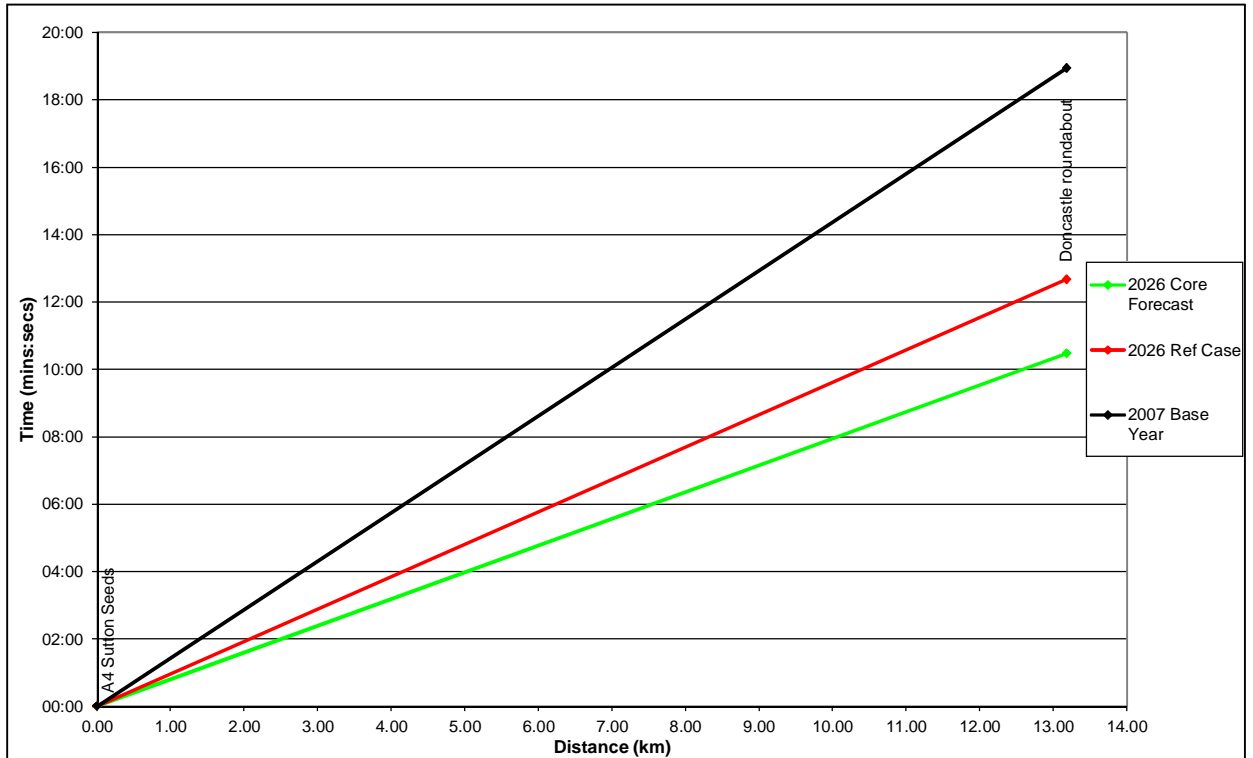
Figure 5.40: AM Peak Journey Time - Route 5 – Anti-Clockwise



5.8.24 A slight increase in delay is shown on Rackstraw Road / Foresters Way in the 2026 Core Forecast compared to the Reference Case, however an improvement in journey time is demonstrated at the Duke's Ride / Lower Wokingham Road junction due to reduced traffic demand on this approach.

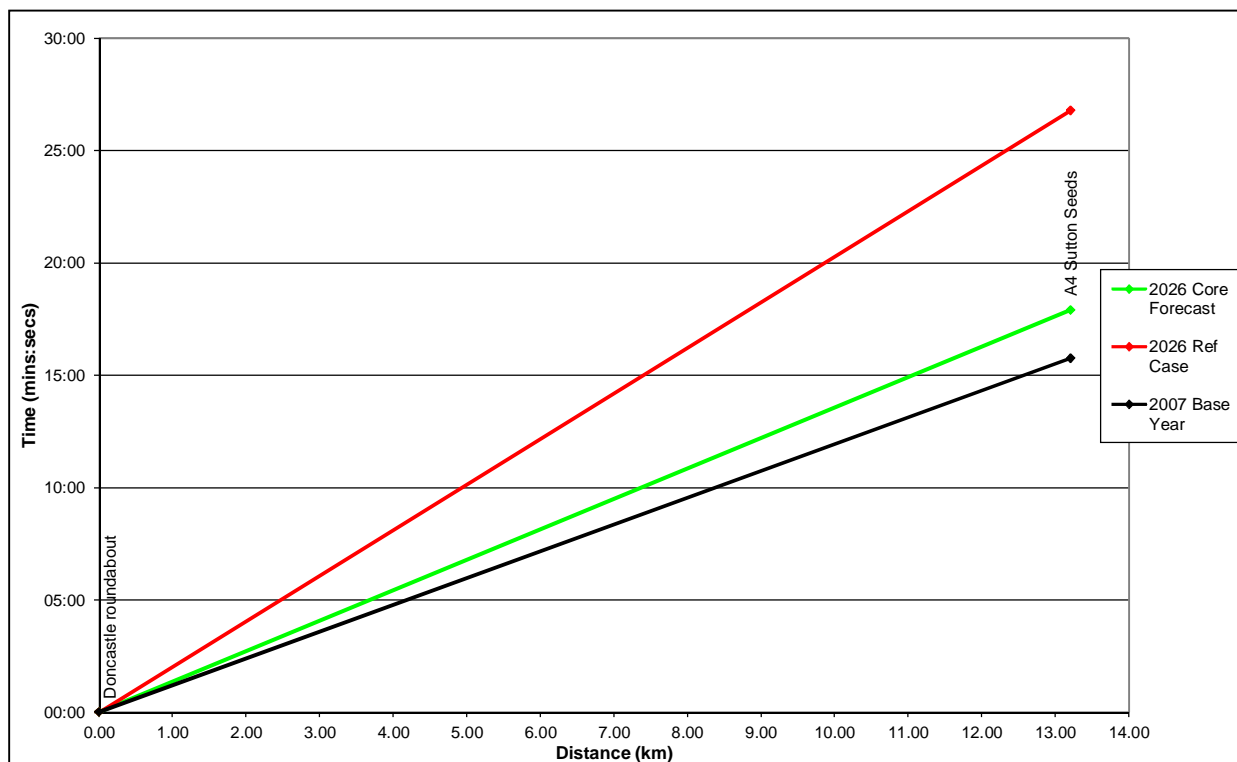
5.8.25 The overall journey time from the Rackstraw Junction to Duke's Ride / Lower Wokingham Road is 6% lower in the 2026 Core Forecast than in the Reference Case.

Figure 5.41: AM Peak Journey Time - Route 6 - Southbound



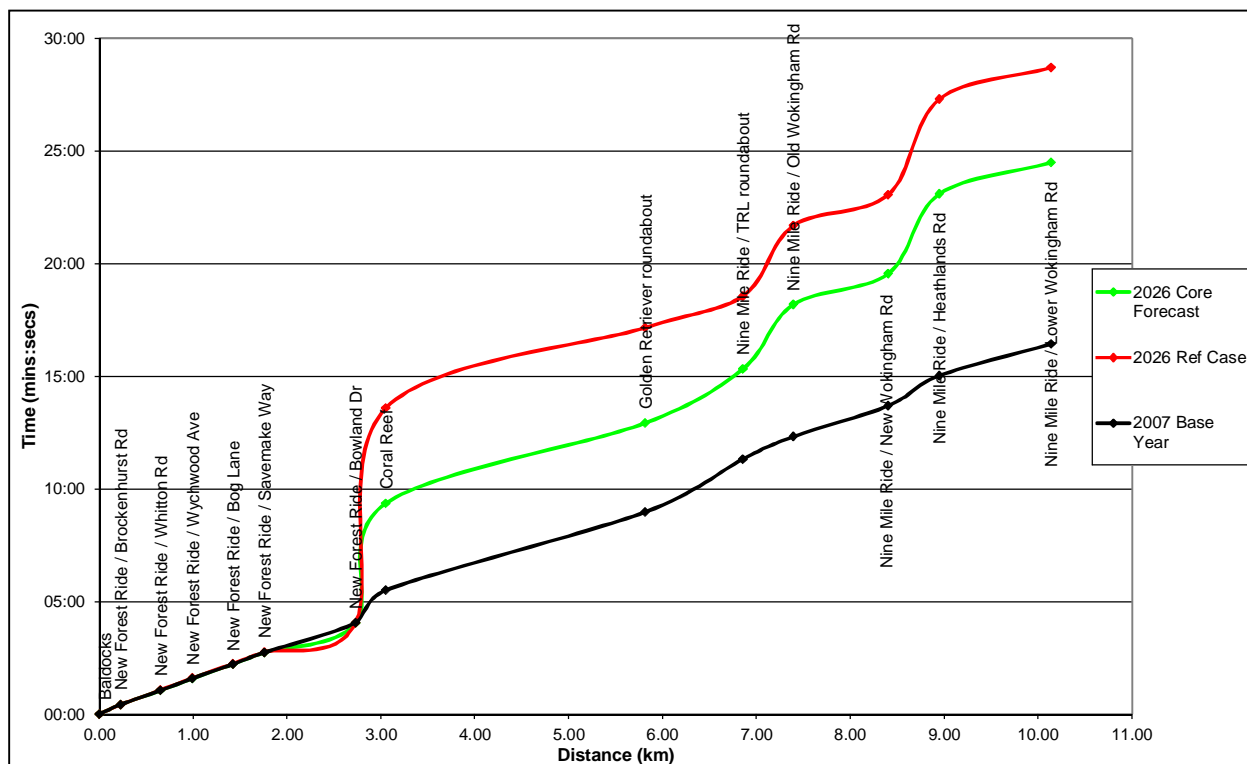
5.8.26 Route 6 southbound demonstrates a noticeable reduction in journey time in the 2026 Reference Case, compared to the 2007 Base Year, due to the reduction in delay at Doncastle Roundabout and the fly-through lane at the new A329 / Peacock Farm roundabout. A 17% improvement in journey time between the A4 at Sutton Seeds and the Doncastle roundabout is shown in the 2026 Core Forecast, compared to the Reference Case, following a reduction in traffic demand on this route.

Figure 5.42: AM Peak Journey Time - Route 6 – Northbound



5.8.27 Route 6 northbound demonstrates a significant increase in journey time in the 2026 Reference Case compared to the 2007 Base Year, with the introduction of the A329 / Peacock Farm roundabout. However there is a 33% reduction in journey time between the Doncastle roundabout and the A4 at Sutton Seeds in the 2026 Core Forecast, compared to the Reference Case, due to reduced traffic demand on this route.

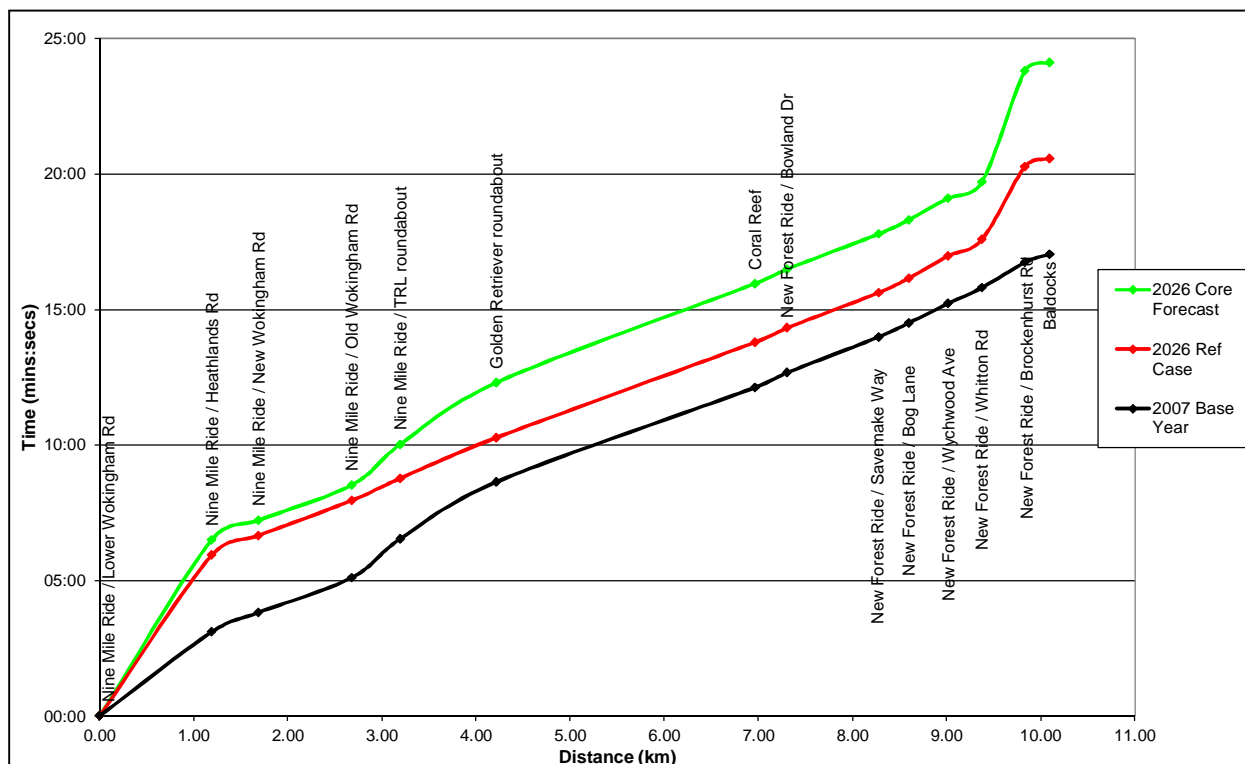
Figure 5.43: AM Peak Journey Time - Route 7 - Southbound



5.8.28 Route 7 southbound demonstrates a substantial increase in delay at the Coral Reef roundabout in the 2026 Reference Case compared to the 2007 Base Year. However this is significantly reduced in the Core Forecast scenario.

5.8.29 The resultant overall journey time from the Baldocks junction to Nine Mile Ride / Lower Wokingham Road is 15% lower in the 2026 Core Forecast than the Reference Case.

Figure 5.44: AM Peak Journey Time - Route 7 – Northbound



5.8.30 Delays are significantly increased at the Nine Mile Ride / Heathlands Road junction in the 2026 Reference Case, and a further increase in delay is shown in the Core Forecast at the Nine Mile Ride / TRL roundabout due to increased traffic flows on this route.

5.8.31 The resultant overall journey time from Nine Mile Ride / Lower Wokingham Road to the Baldocks junction is 17% higher in the 2026 Core Forecast than the Reference Case.

PM Peak Journey Times

5.8.32 A comparison of the modelled journey times output for each scenario is shown below in Table 5.15 for the PM peak. Each route is displayed graphically in Figure 5.45 to Figure 5.58.

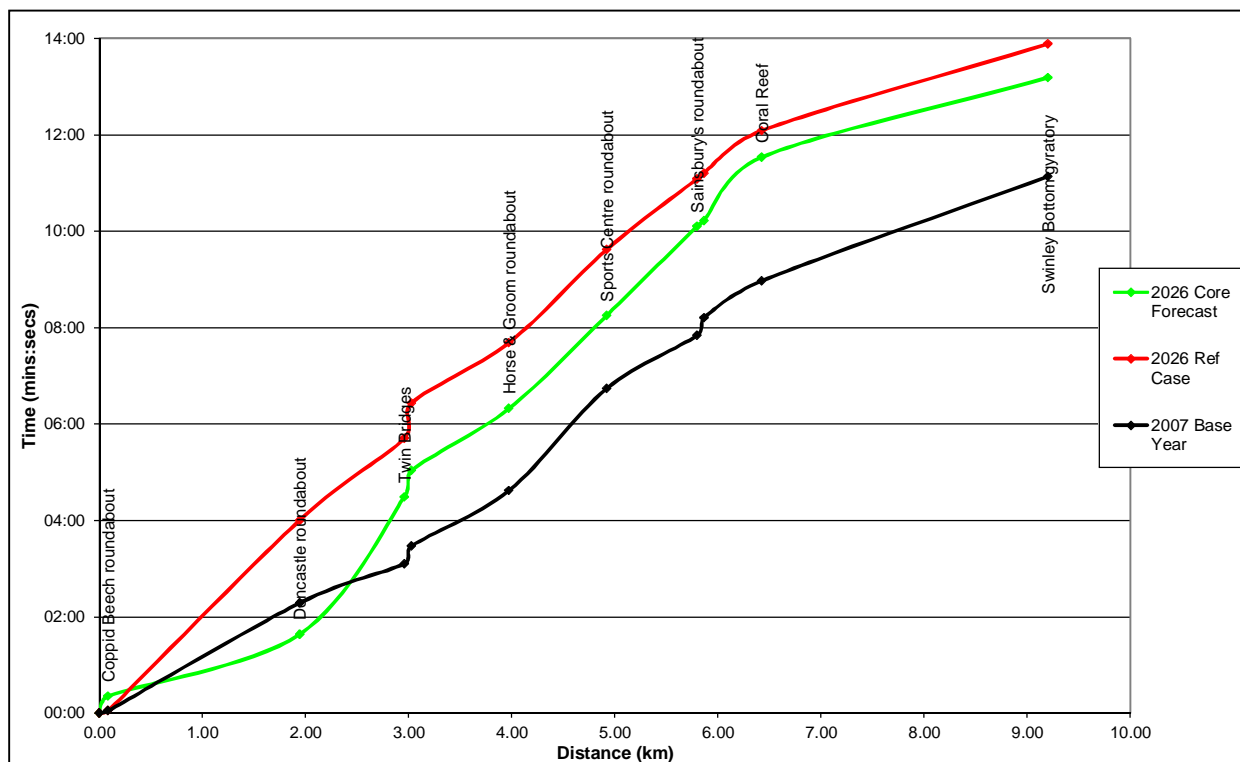
Table 5.15: Journey Time Summary - PM Peak

| Route | Dir | 2007 Base Year | 2026 Ref Case | 2026 Core Forecast | |
|--|-----|----------------|---------------|--------------------|------------|
| | | JT (mm:ss) | JT (mm:ss) | JT (mm:ss) | % Diff RC |
| 1: Coppid Beech to Swinley Bottom Gyratory | S | 11:08 | 13:53 | 13:11 | -5% |
| | N | 10:21 | 16:10 | 16:48 | 4% |
| 2: Coppid Beech to A329 London Rd / A322 Windsor Rd | E | 12:55 | 18:37 | 17:55 | -4% |
| | W | 13:32 | 19:21 | 20:30 | 6% |
| 3: A3095 Foresters Way / Bracknell Rd to 3M Roundabout | S | 09:31 | 15:21 | 14:10 | -8% |
| | N | 05:57 | 07:41 | 07:53 | 3% |
| 4: Horse and Groom to A3095 Maidenhead Rd / A330 Ascot Rd | S | 10:14 | 17:52 | 12:37 | -29% |
| | N | 08:48 | 12:09 | 10:29 | -14% |
| 5: A321 Lower Wokingham Rd / Duke's Ride to A321 Rackstraw Junction (via Crowthorne High St / Foresters Way) | CW | 10:29 | 13:51 | 14:10 | 2% |
| | ACW | 10:15 | 12:56 | 13:12 | 2% |
| 6: A329(M) (Doncastle Roundabout) to A4 Sutton Seeds | S | 17:02 | 17:44 | 11:29 | -35% |
| | N | 15:45 | 13:53 | 14:27 | 4% |
| 7: A321 Lower Wokingham Rd / Nine Mile Ride to Baldocks Roundabout | S | 19:40 | 26:57 | 27:14 | 1% |
| | N | 17:18 | 22:37 | 22:47 | 1% |
| Average | | | | | -5% |

5.8.33 Table 5.15 demonstrates that, in comparison the 2026 Reference Case, the M3 scenario provides an overall reduction in journey time of 5% across the key routes measured in the PM peak, with the majority of routes experiencing a slight increase however many routes experience a more significant reduction.

5.8.34 As highlighted in the AM peak assessment (5.8.4), the implementation of adaptive signal control such as MOVA or SCOOT is likely to provide further benefits to junction operation, thus reducing journey times across the Borough further.

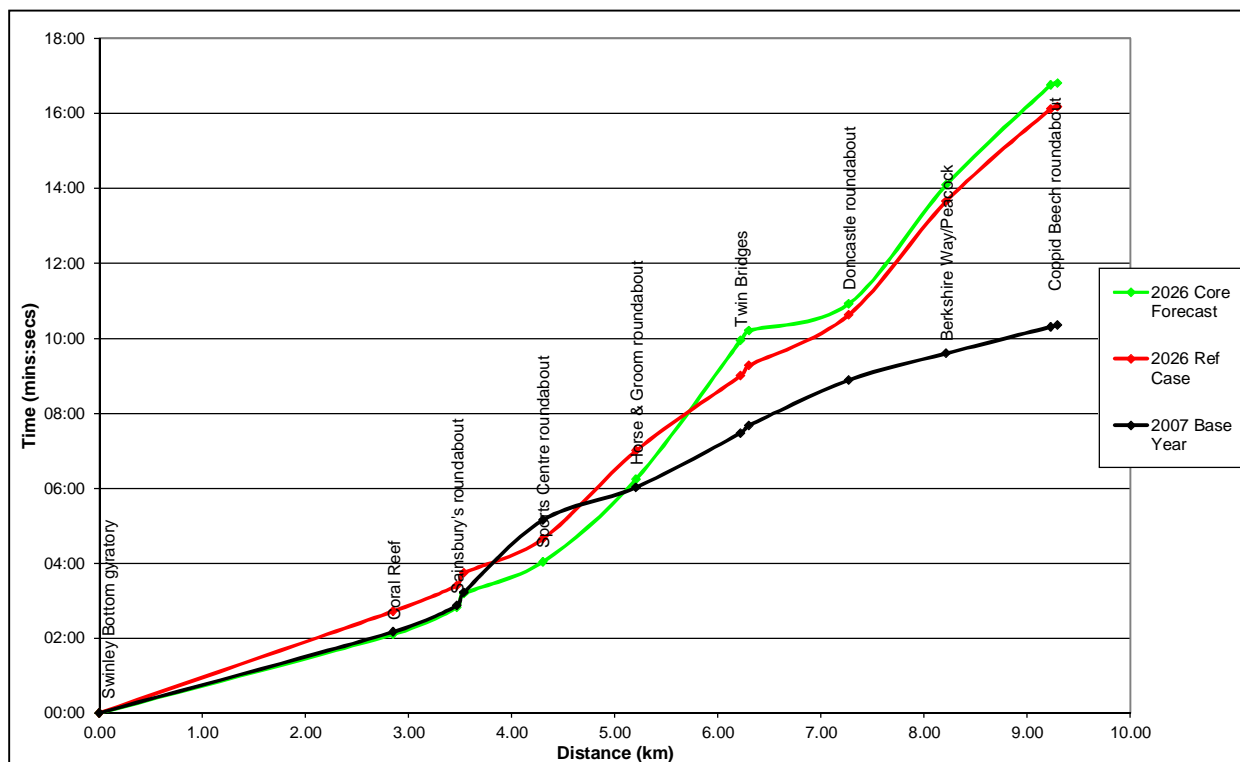
Figure 5.45: PM Peak Journey Time - Route 1 - Southbound



5.8.35 Route 1 southbound demonstrates an increase in delay at Newcastle roundabout in the 2026 Reference Case, compared to the 2007 Base Year, however there is a significant reduction in the Core Forecast as a result of signalisation at this junction. There is shown to be an increase in delay at the Twin Bridges gyratory in both 2026 forecast scenarios, arising from a significant increase in traffic demand through this junction.

5.8.36 The resultant overall journey time from Coppid Beech to Swinley Bottom is 5% lower in the 2026 Core Forecast than in the Reference Case. As reported in the AM peak assessment there are likely to be benefits, in terms of delay reduction, in implementing SCOOT or MOVA control at several of the signalised junctions along this key corridor – particularly Twin Bridges and Horse and Groom.

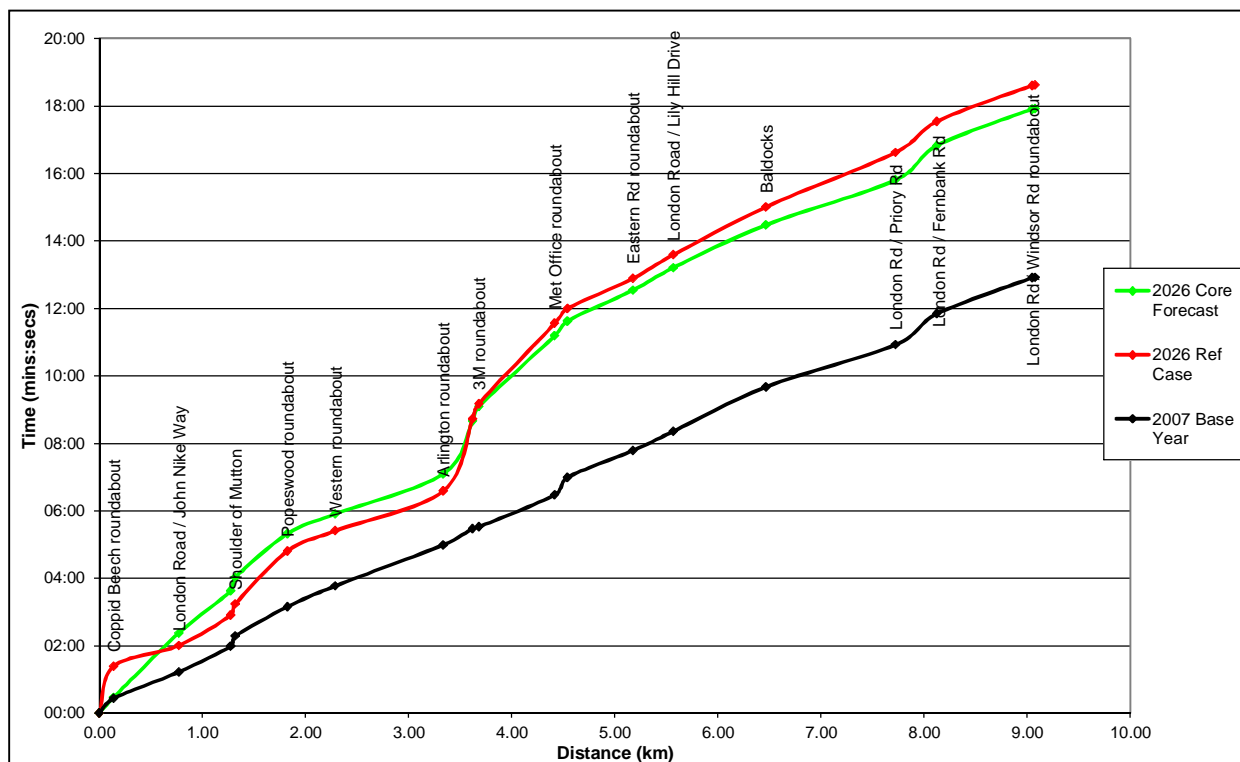
Figure 5.46: PM Peak Journey Time - Route 1 - Northbound



5.8.37 There is an increase in delay in the northbound direction (on the A322) at the Twin Bridges gyratory in 2026, resulting from a significant increase in traffic demand. However there is shown to be a substantial improvement at the downstream Doncastle Roundabout following signalisation of this junction in the 2026 Core Forecast scenario.

5.8.38 The overall resultant journey time from Swinley Bottom to Coppid Beech is 4% higher in the 2026 Core Forecast than in the Reference Case; similarly to the southbound direction, additional gains may be achieved through the use of SCOOT / MOVA at signalised junctions along this corridor, yielding further reductions in journey time.

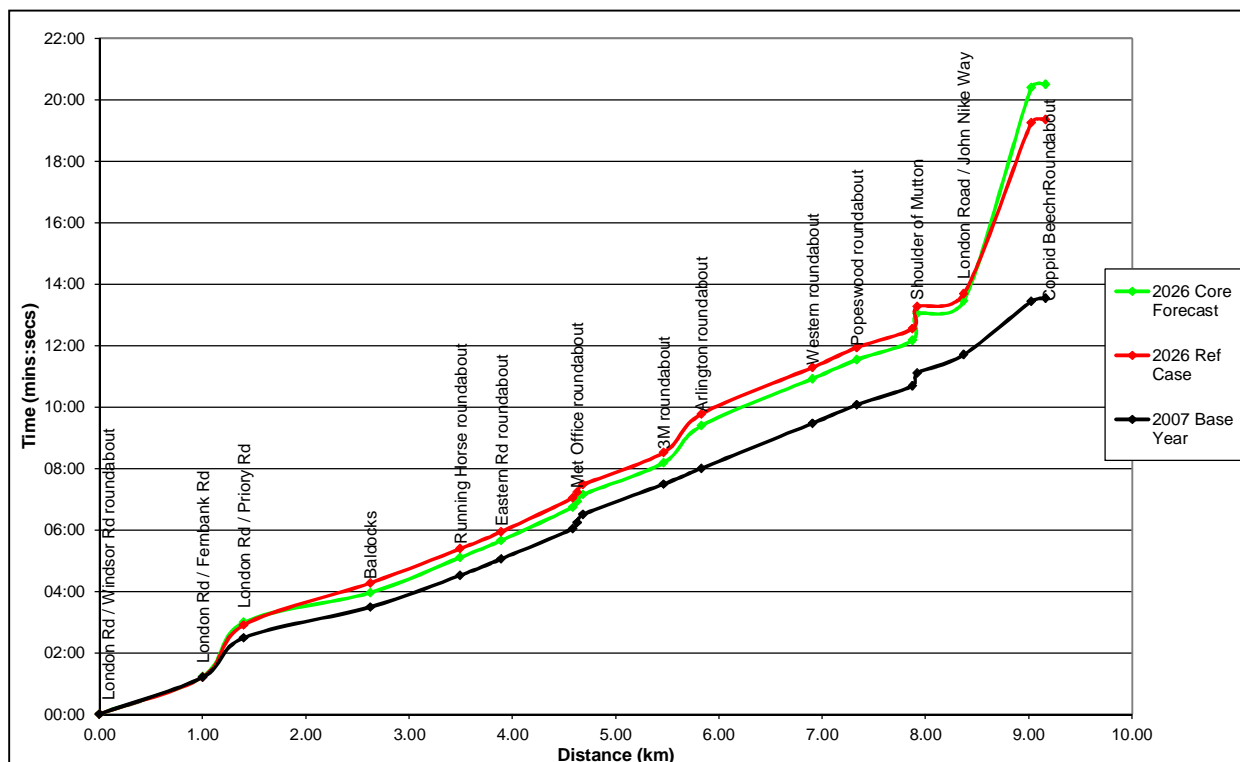
Figure 5.47: PM Peak Journey Time - Route 2 - Eastbound



5.8.39 Similarly to the AM peak, there is shown to be an increase in delay between Coppid Beech and London Road / John Nike Way in the 2026 PM peak scenarios, even more so in the Core Forecast due to the additional signalised junction with the Amen Corner spine road. In this scenario however, delays at Coppid Beech itself are reduced following improvements at this junction.

5.8.40 Reduced delay at the 3M roundabout in the 2026 Core Forecast scenario means that the overall journey time from Coppid Beech to London Road / Windsor Road is 4% lower than in the Reference Case.

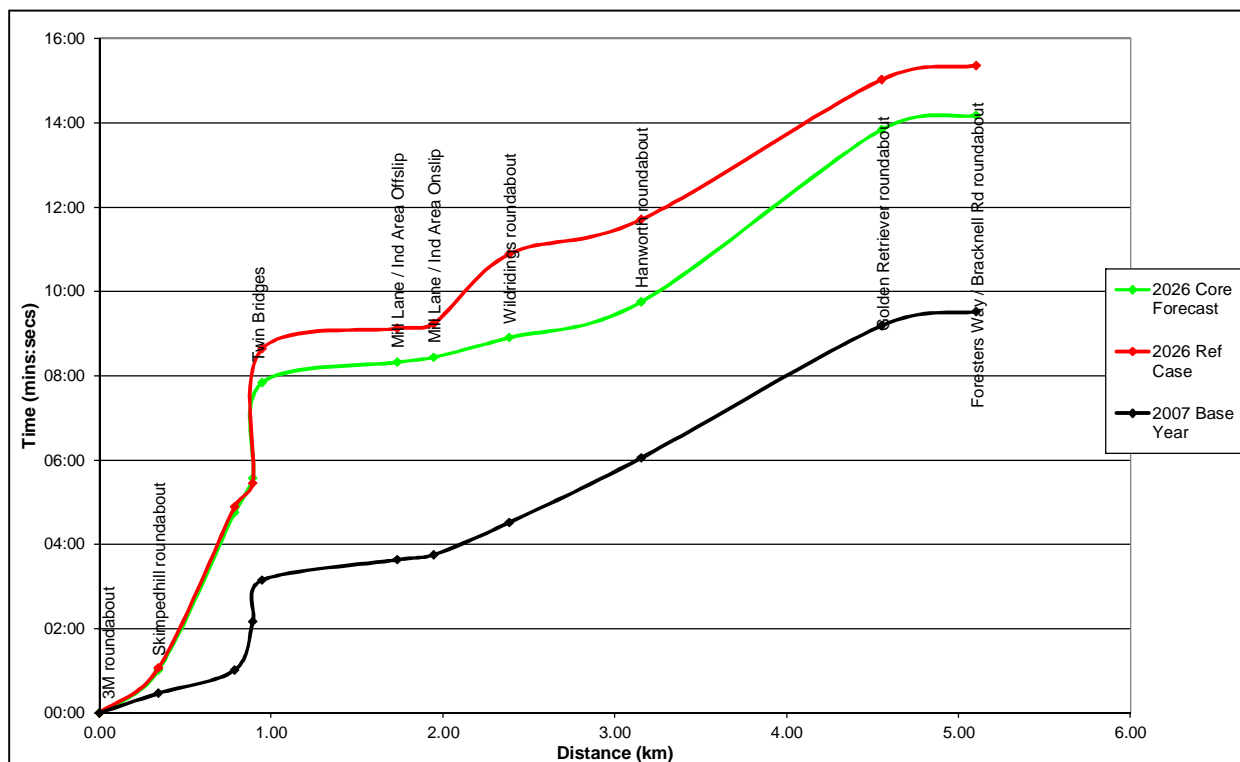
Figure 5.48: PM Peak Journey Time - Route 2 - Westbound



5.8.41 As in the AM peak assessment, route 2 westbound demonstrates little change in journey time between 2007 and 2026 from London Road / Windsor Road up to the 3M roundabout, although there is an increase in delay at London Road / Priory Road in both Forecast Scenarios. After this point gradual increases in delay are experienced, above the 2007 Base year, particularly approaching Arlington roundabout, Western roundabout and Coppid Beech.

5.8.42 Although there are junction improvements at Coppid Beech in the 2026 Core Forecast scenario, there is shown to be an increase in delay due to the higher traffic flow approaching this junction. The overall journey time from London Road / Windsor Road to Coppid Beech roundabout is 6% higher in the 2026 Core Forecast compared to the Reference Case.

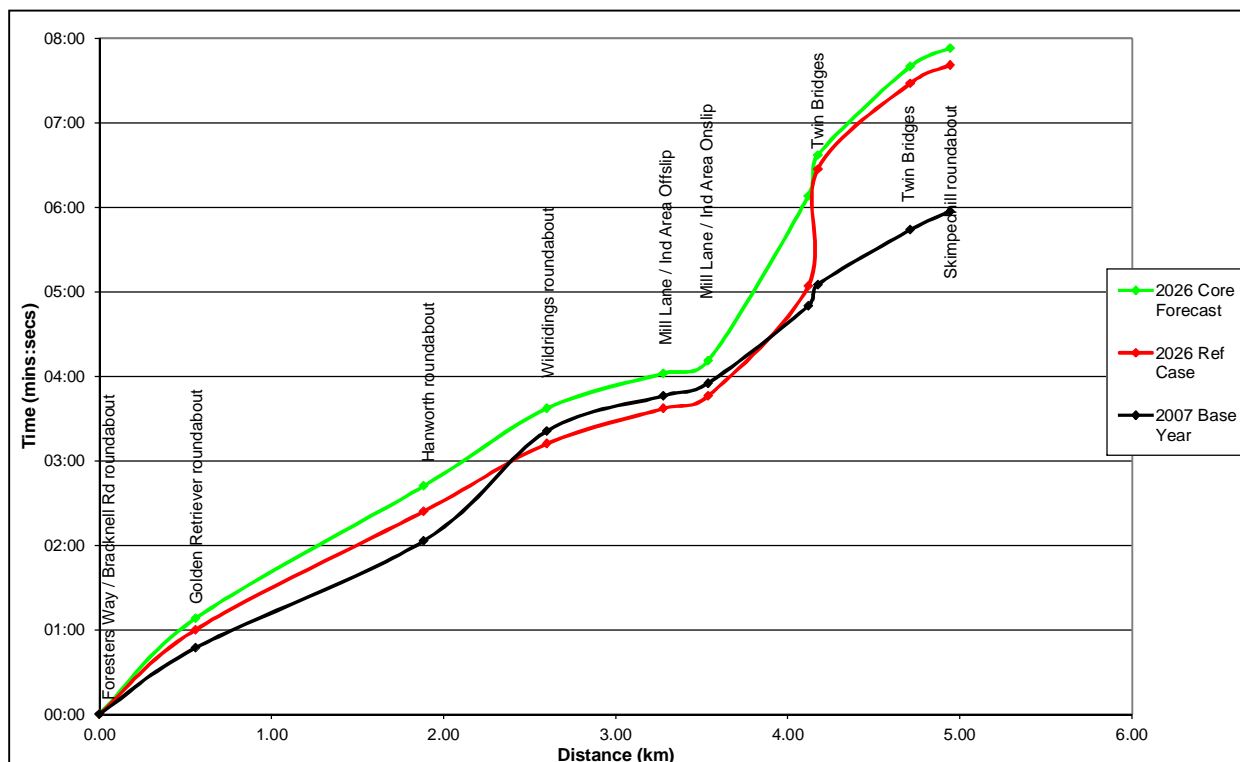
Figure 5.49: PM Peak Journey Time - Route 3 - Southbound



5.8.43 In the PM peak there is shown to be an increase in journey time at the Twin Bridges gyratory in 2026 due to a rise in traffic demand through the junction. An increase in delay is experienced travelling across the Golden Retriever roundabout in the Core Forecast compared to the Reference Case, however improvements are achieved at the Wildridings roundabout and Twin Bridges in this scenario.

5.8.44 The resultant overall journey time, from the 3M roundabout to the Foresters Way / Bracknell Road roundabout is 8% lower in the 2026 Core Forecast than the Reference Case. However, as reported in the AM peak assessment there are likely to be benefits, in terms of delay reduction, in implementing SCOOT or MOVA control at signalised junctions along this corridor, particularly at Twin Bridges.

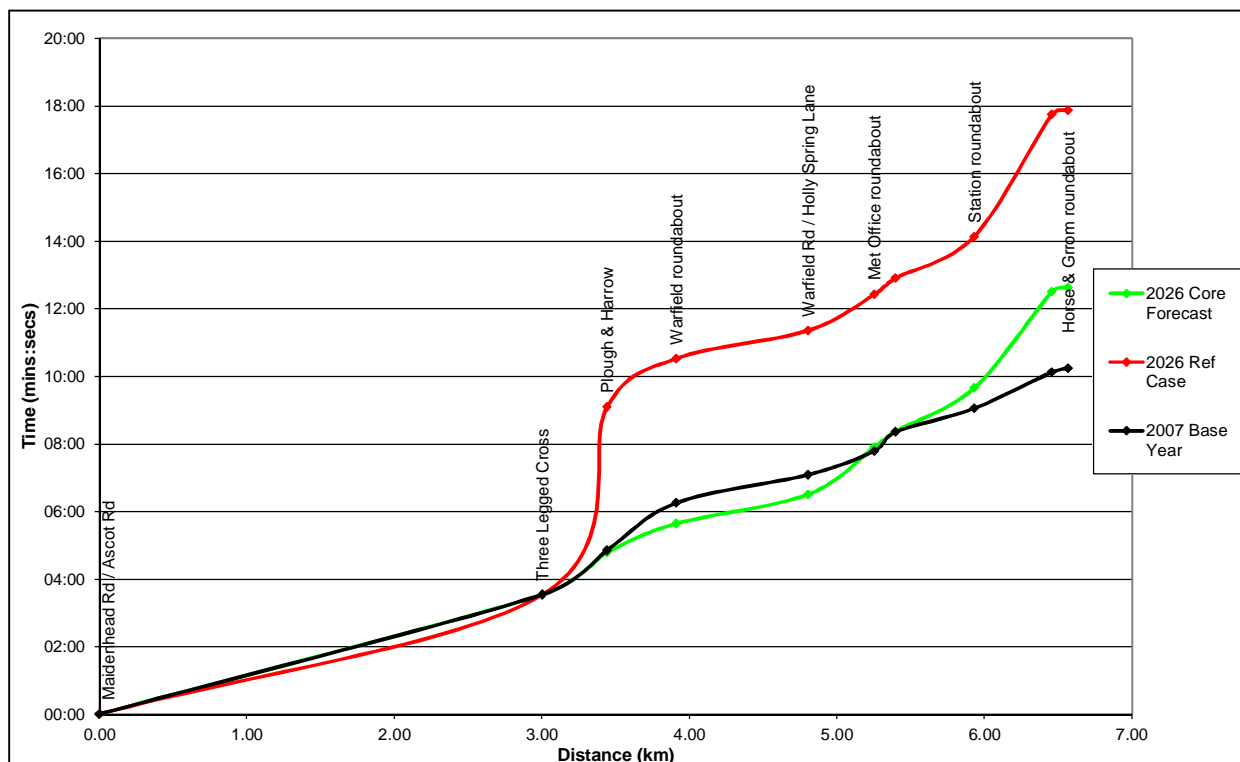
Figure 5.50: PM Peak Journey Time - Route 3 - Northbound



5.8.45 In the PM peak, route 3 northbound demonstrates an increase in delay approaching the Twin Bridges gyratory in the 2026 Core Forecast compared to the Reference Case, but a reduction travelling across the junction.

5.8.46 The resultant overall journey time, from the Foresters Way / Bracknell Road roundabout to the 3M roundabout is 3% higher in the 2026 Core Forecast compared to the Reference Case. Similarly to the northbound direction, the use of SCOOT or MOVA is likely to enhance the efficiency of signalised junctions along this corridor, reducing delays and providing further improvements to journey time reliability.

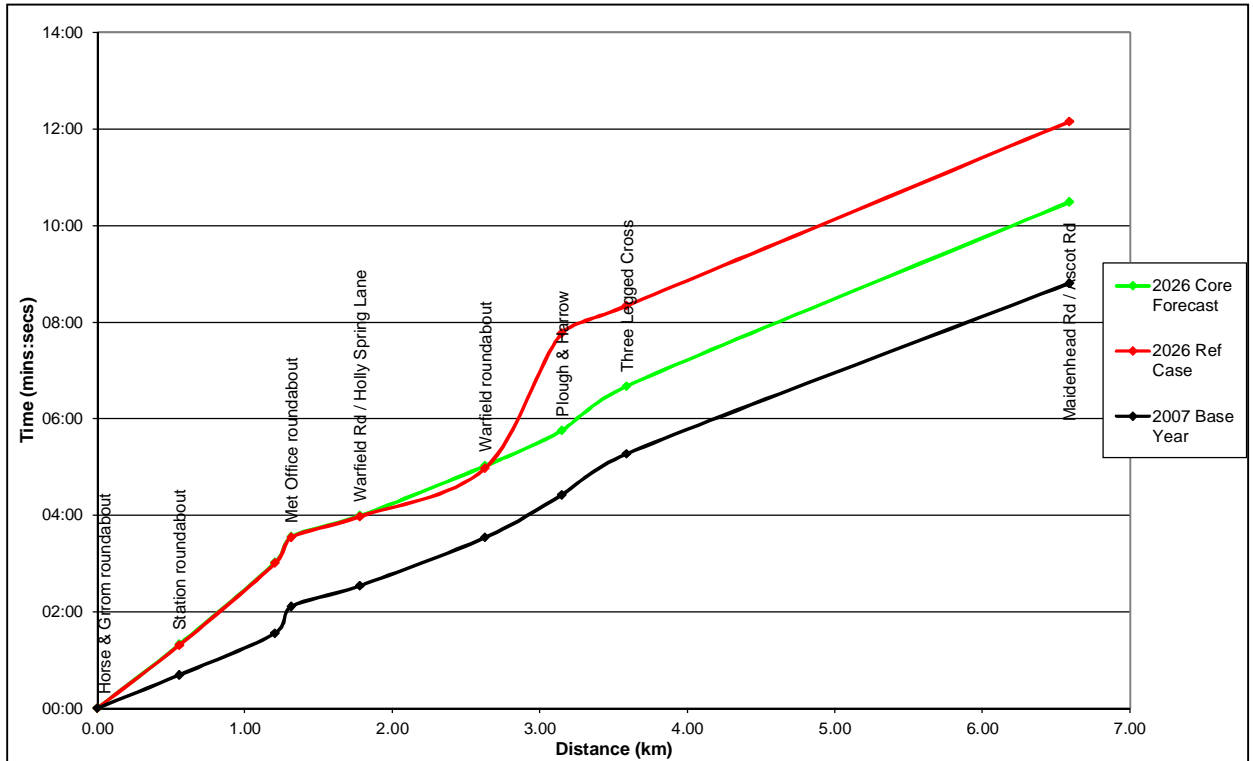
Figure 5.51: PM Peak Journey Time - Route 4 - Southbound



5.8.47 Similarly to the AM peak, a substantial reduction in delay is shown at the Three Legged Cross and Plough and Harrow junctions in the 2026 Core Forecast compared to the Reference Case, as a result of traffic diverting onto the adjacent north-south Link Road through Warfield.

5.8.48 The overall journey time from Maidenhead Road / Ascot Road to the Horse and Groom roundabout is 29% lower in the 2026 Core Forecast than in the Reference Case.

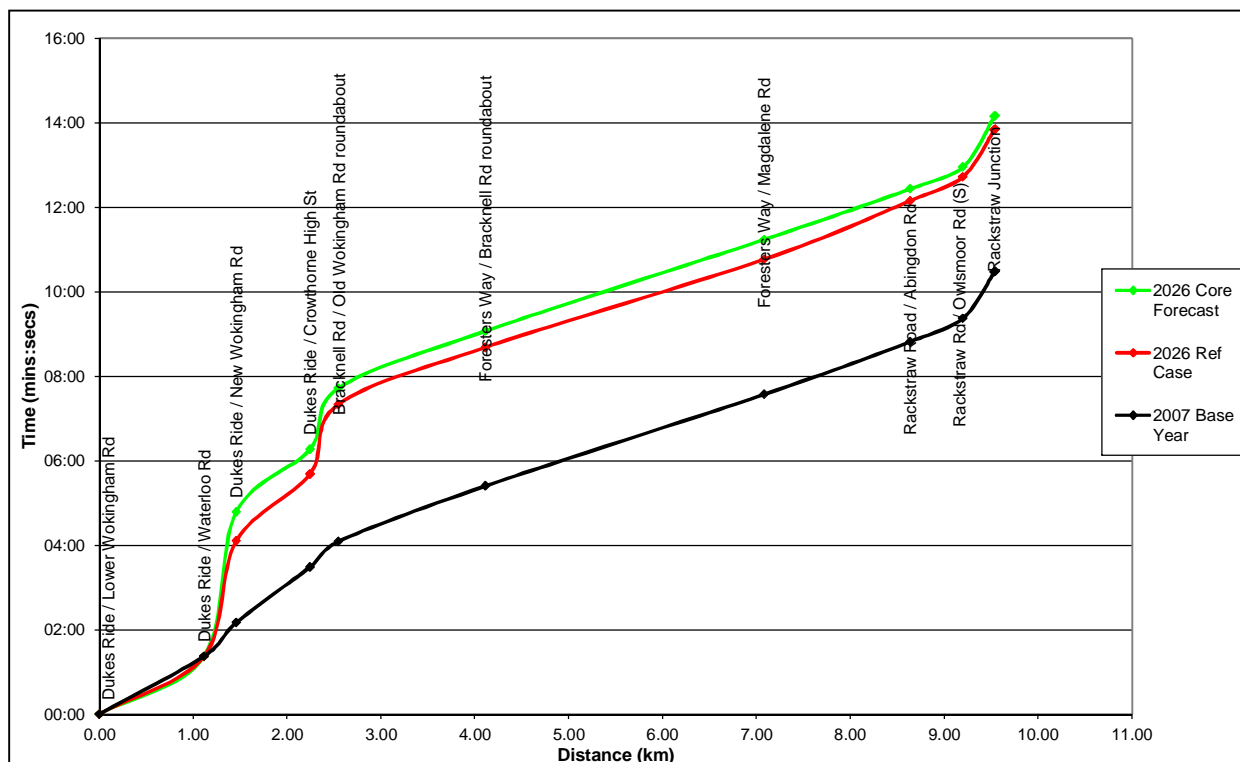
Figure 5.52: PM Peak Journey Time - Route 4 - Northbound



5.8.49 As in the AM peak assessment route 4 northbound demonstrates a significant reduction in delay at the Plough and Harrow junction as a result of traffic diverting onto the adjacent Link Road.

5.8.50 The overall journey time from the Horse and Groom roundabout to Maidenhead Road / Ascot Road is consequently 14% lower in the 2026 Core Forecast than in the Reference Case.

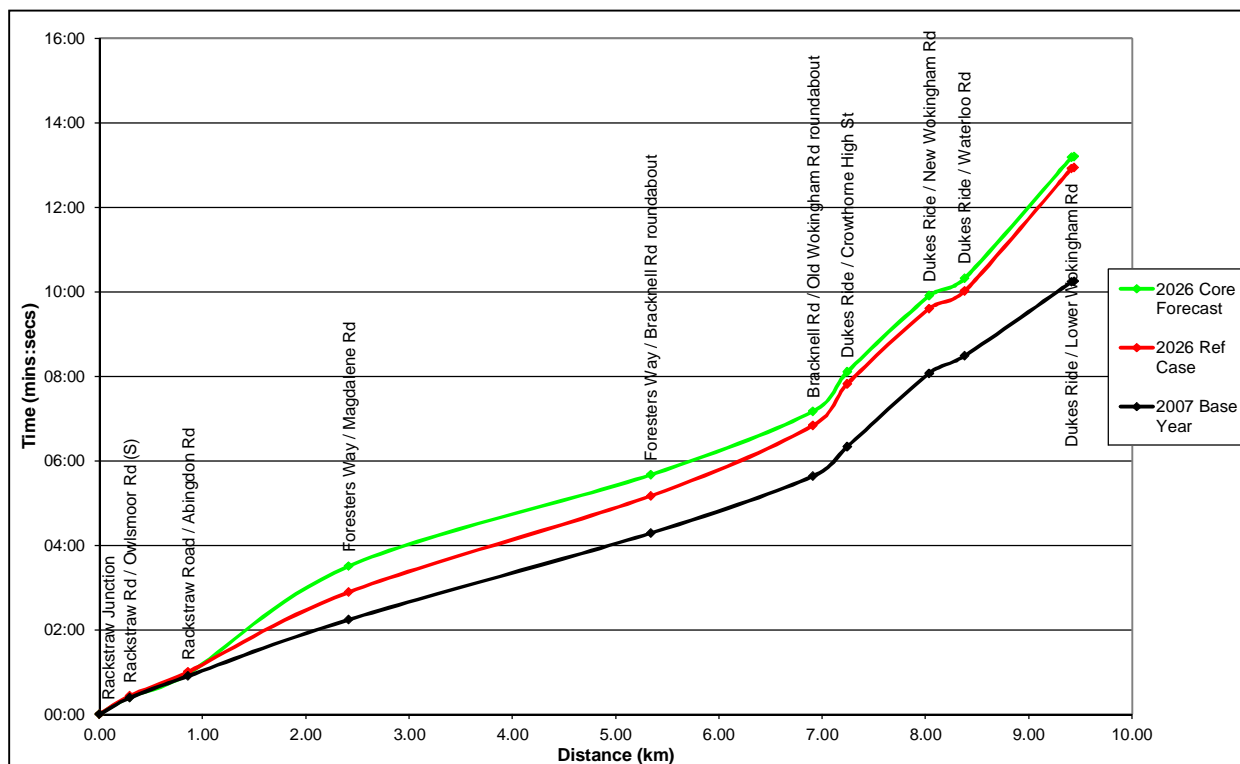
Figure 5.53: PM Peak Journey Time - Route 5 - Clockwise



5.8.51 In the PM peak significant increases in journey time are experienced along Duke's Ride in the 2026 Reference Case compared to the Base Year, resulting from increased traffic flow along this route. A slight reduction in delay is demonstrated in the 2026 Core Forecast scenario at Bracknell Road / Old Wokingham Road roundabout due to reduced traffic demand on the conflicting movement.

5.8.52 The overall journey time from Duke's Ride / Lower Wokingham Road to the Rackstraw Junction is 2% higher in the 2026 Core Forecast than in the Reference Case.

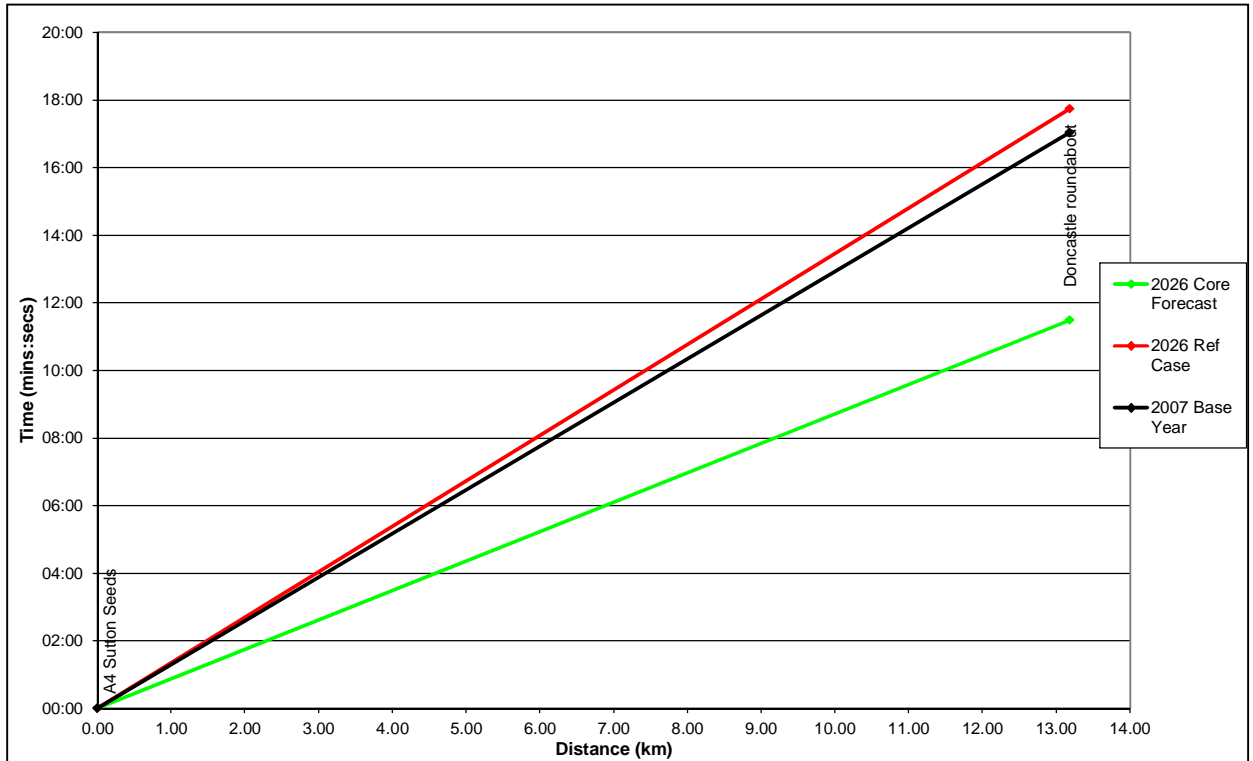
Figure 5.54: PM Peak Journey Time - Route 5 – Anti-Clockwise



5.8.53 In the anti-clockwise direction, an increase in journey time is shown along Rackstraw Road / Foresters Way in the 2026 Forecast Scenarios as a result of increased traffic demand on this route.

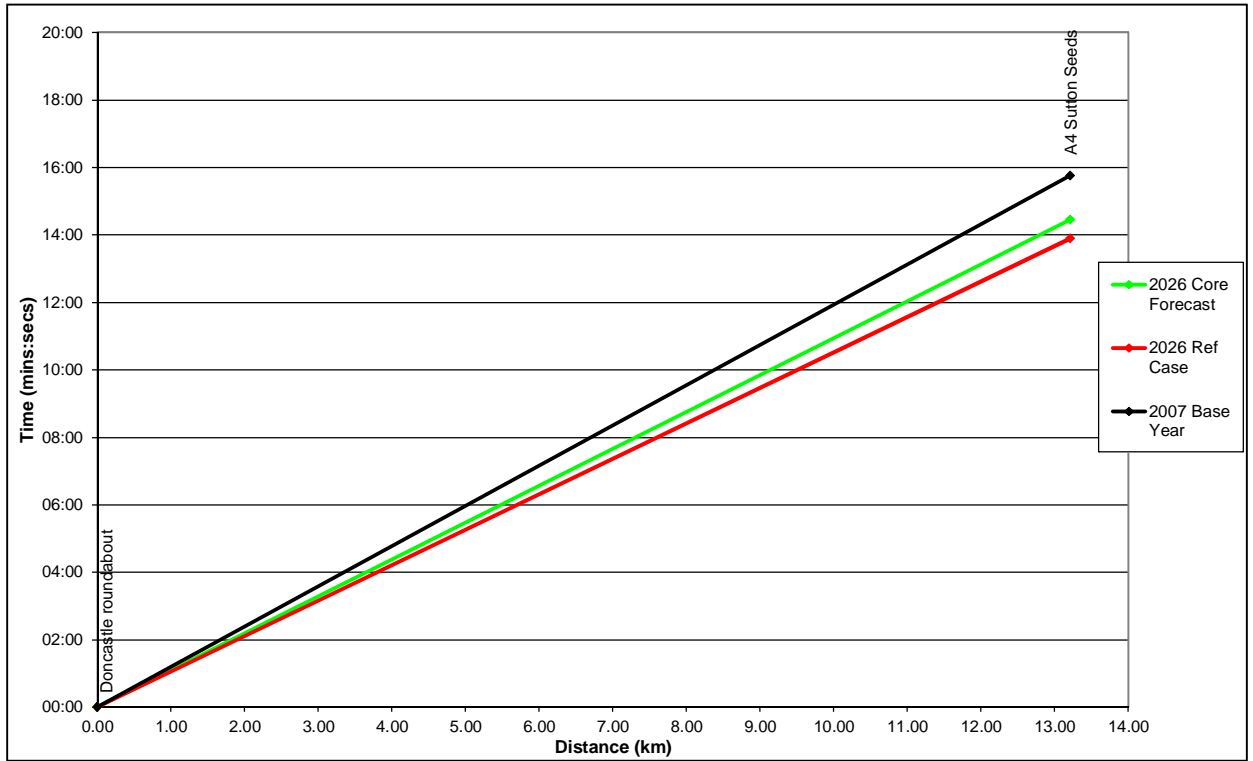
5.8.54 The overall journey time from the Rackstraw Junction to Duke's Ride / Lower Wokingham Road is consequently 2% higher in the 2026 Core Forecast compared to the Reference Case.

Figure 5.55: PM Peak Journey Time - Route 6 - Southbound



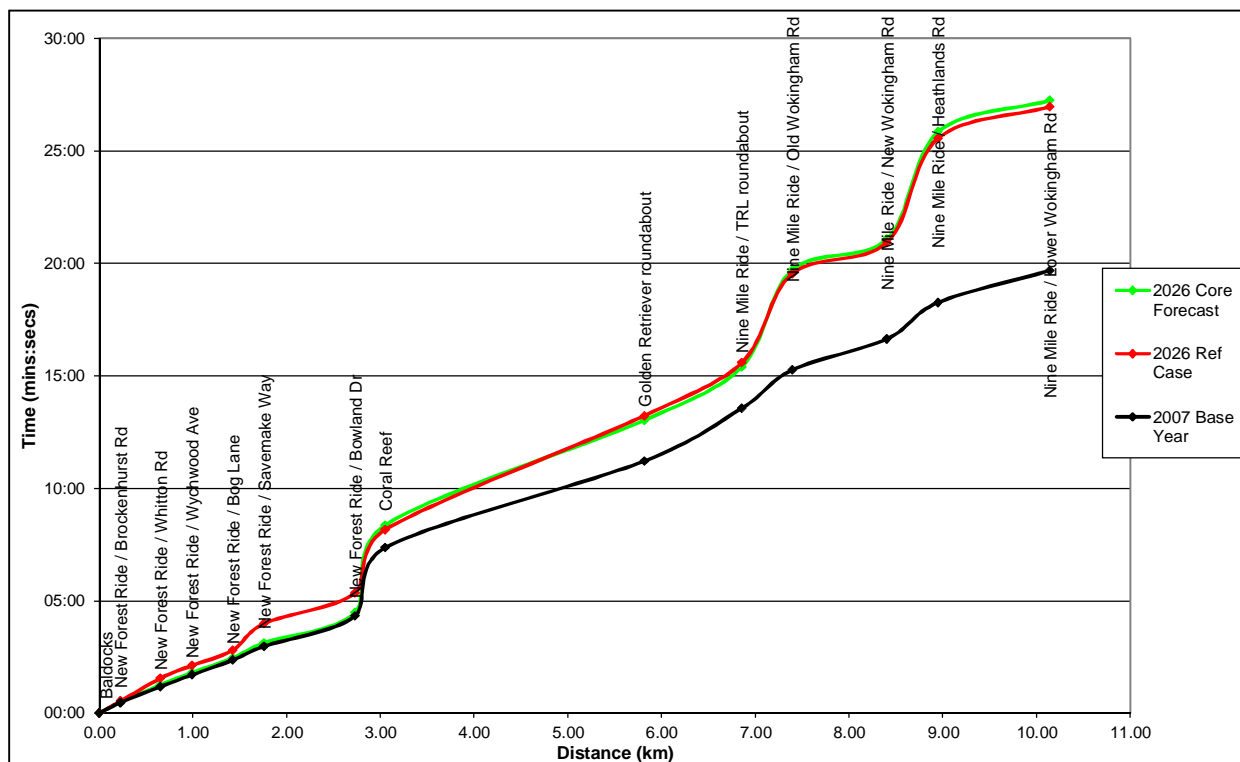
5.8.55 Route 6 southbound demonstrates a 35% improvement in journey time between the A4 at Sutton Seeds and the Doncastle roundabout in the 2026 Core Forecast scenario, compared to the Reference Case, from significantly reduced traffic demand on this route.

Figure 5.56: PM Peak Journey Time - Route 6 – Northbound



5.8.56 Route 6 northbound demonstrates a 4% increase between the Doncastle roundabout and the A4 at Sutton Seeds in the 2026 Core Forecast scenario, compared to the Reference Case. This is mainly due to increased traffic demand approaching the A329 / Peacock Farm roundabout.

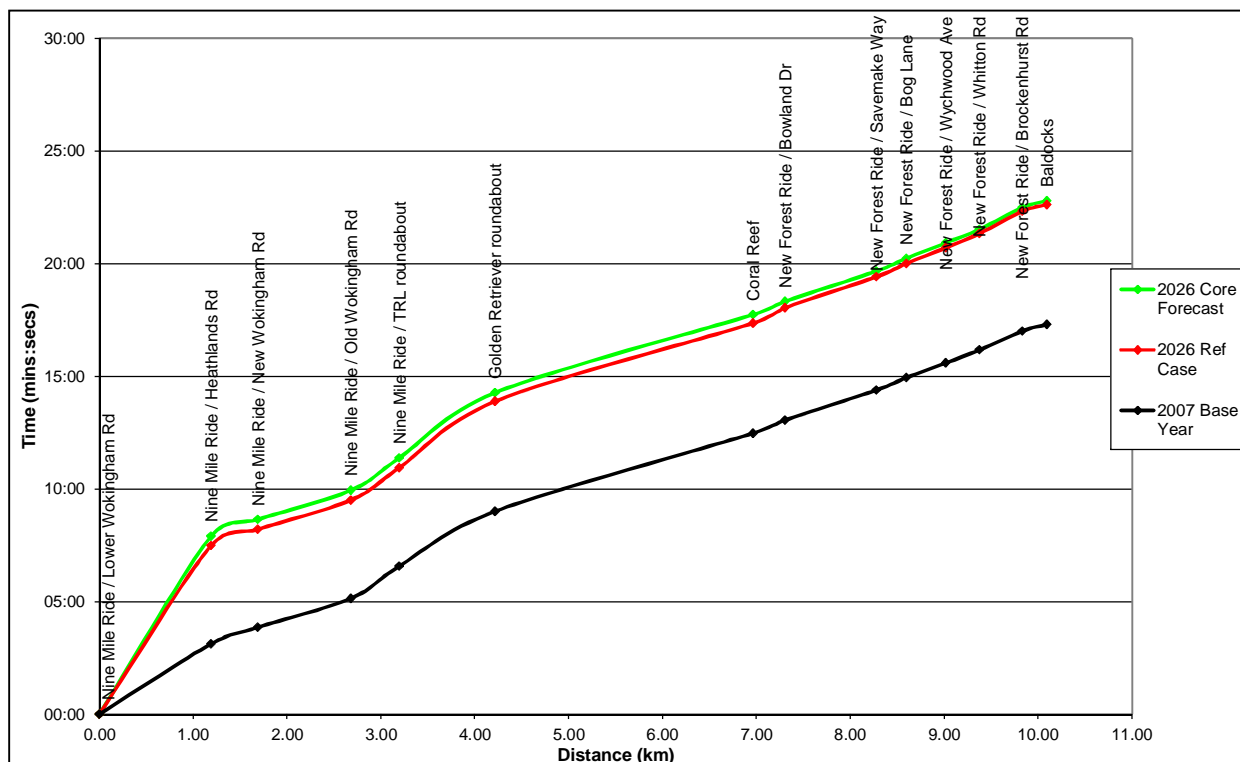
Figure 5.57: PM Peak Journey Time - Route 7 - Southbound



5.8.57 In the PM peak route 7 southbound demonstrates a notable increase in delay at the Coral Reef junction in the 2026 Core Forecast compared to the Reference Case, due to increased traffic demand on the conflicting A322 southbound movement.

5.8.58 The resultant overall journey time from the Baldocks junction to Nine Mile Ride / Lower Wokingham Road is 1% higher in the 2026 Core Forecast than in the Reference Case.

Figure 5.58: PM Peak Journey Time - Route 7 – Northbound



5.8.59 Route 7 northbound demonstrates a substantial increase in journey time along Nine Mile Ride in the 2026 Forecast Scenarios, in the main due to increased traffic flows along this route.

5.8.60 The overall journey time from Nine Mile Ride / Lower Wokingham Road to the Baldocks junction is 1% higher in the 2026 Core Forecast compared to the Reference Case.

Summary

5.8.61 The analysis of journey times on key routes across Bracknell in 2026 demonstrates an overall improvement in both the AM peak and PM peak, in the 2026 Core Forecast (with the proposed developments and infrastructure schemes) compared to the Reference Case. There is shown to be an average reduction in journey time, across the fourteen assessed routes, of 10% in the AM peak and 5% in the PM peak.

5.8.62 The majority of the key routes assessed demonstrate a reduction in the overall journey time, although some are shown to increase and there are likely to be increases in delay at particular junctions, even where overall route journey time is shown to improve.

5.9 MITIGATION

5.9.1 A number of junctions within Bracknell Forest Borough area have been identified which may require redesign, in order to improve the operation and reduce delays and improve journey times in the 2026 Core Forecast scenario. These junctions are listed below in Table 5.16. This is not an exhaustive list and there will almost certainly be improvements required to junctions which are more closely linked to individual development proposals.

Table 5.16: BFB Junctions Identified for Mitigation

| Junction |
|--|
| Coral Reef roundabout |
| Golden Retriever roundabout ('The Hut') |
| Baldocks roundabout |
| Maidens Green crossroads |
| A3095 Rackstraws Road / Owlsmoor Road |
| B3408 Wokingham Road / Stoney Road |
| Hanworth Road / Ringmead |
| Bracknell Road / Old Wokingham Road roundabout |
| Hanworth roundabout |
| Horse and Groom roundabout |
| Binfield Road / Forest Road |
| Crowthorne High Street / Duke's Ride |
| Twin Bridges - northern junction |

5.9.2 It should also be noted that improvements in the operation of signalised junctions can be achieved through the implementation of adaptive signal control such as SCOOT or MOVA. These intelligent traffic signal systems are currently delivering proven benefits across many junctions in the UK and can potentially improve the efficiency of junction operation in Bracknell. They work by continuously monitoring traffic demand and queue build-up and optimising green times accordingly, thus enhancing the efficiency of the junction by balancing traffic demand and queues, increasing traffic throughput and reducing delays. An improvement in delays of around 12% - 27% (over good fixed time plans) could be achieved at each MOVA/SCOOT controlled junction (TAL 4/95). This could apply to many junctions within BFB, in particular Twin Bridges gyratory.

6 Conclusion

6.1 BACKGROUND

6.1.1 This report provides information of the future situation in the study area in terms of major land use changes, development proposals and proposed future transport infrastructure improvements.

6.1.2 The note also describes the future year forecasting methodology to be adopted as part of the traffic model development and future year assessment.

6.1.3 The resulting models provide an opportunity to test a range of transport and development schemes under consideration across the Borough and region.

6.1.4 The future assessment year is 2026 (in line with the end of the current plan period) and two 2026 Forecast Scenarios have been assessed, comprising different levels of development and infrastructure:

- 2026 Reference Case
- 2026 Core Forecast

6.1.5 The Forecast Scenario models have been assessed for the AM (0800 – 0900) and PM (1700 – 1800) peaks.

6.2 BASE YEAR MODEL

6.2.1 The Bracknell Multi Modal Transport Model (BMMTM) was originally developed in 2009 by WSP, and validated to a 2007 Base Year for AM (0800 – 0900) and PM (1700 – 1800) peak hours. The model has since been revised to include more detailed coding within the Wokingham area, in terms of highway network and zone structure.

6.2.2 The Base Year assignment models have been validated to observed link counts and journey times on the highway aspect of the network, and public transport matrices were calibrated against observed rail and bus passenger counts. The Base Year demand model has been calibrated to fit as closely as possible to the known observed travel patterns. A detailed description of the validation and calibration of the 2007 Base Year assignment and demand models can be found in the “Bracknell Multi Modal Transport Model: Base Model Development and Validation Report” (June 2011).

6.3 FORECAST ASSUMPTIONS

6.3.1 Inputs to the Forecast demand model are described in Section 2. Information on specific housing and employment developments within Bracknell Forest Borough were provided by BFC, incorporating TEMPRO (dataset 6.2) growth forecasts as a target for the overall population and employment levels across the Borough. As part of the update of the BMMTM, to include more detailed coverage of the Wokingham area, this methodology has also been applied to the Wokingham Borough zones. 2026 TEMPRO growth forecasts were applied to the rest of the modelled zones outside of the Bracknell and Wokingham Boroughs.

6.3.2 The BMMTM is an absolute model applied incrementally, meaning the absolute difference between Base and Forecast synthetic matrices, generated by the Forecast demand models, was added to the validated 2007 Base assignment matrices to produce Forecast assignment matrices for each assessed year. This method was applied for car and public transport matrices. HGV assignment matrices were derived from the validated Base Year matrices, applying growth rates obtained from NTS projections in line with the Forecast Year. These Forecast assignment matrices were assessed on the future year networks for 2026 AM and PM peak scenarios and the results are discussed in Section 5.

6.4 LINK FLOW CHANGES

6.4.1 Analysis of changes in traffic flow and ratio of flow to capacity (RFC) on key links and corridors through the Borough demonstrate that, in general, increases in flow are experienced on the majority of roads in the network as a result of the growth in traffic in the 2026 Forecast Scenarios. Some re-routing is shown particularly around the town centre junctions with improvements to the Twin Bridges gyratory and new junctions on the A329(M). This is illustrated by reductions in flow on the A329 Berkshire Way and Doncastle Road. In the Core Forecast scenario, with the introduction of developments such as Amen Corner and White Grove / Quelm Park, further localised re-routing is shown as a result of new link roads introduced through the sites.

6.4.2 RFC values are also generally increased in the 2026 Forecast Scenarios in line with traffic flows, and in some locations links are pushed over capacity. Of particular note is the A329(M), which approaches capacity in both the AM and PM peaks in the 2026 Reference Case. An excessive amount of traffic is also expected to route along Peacock Lane, to the west of the new junctions joining the A329(M), mainly as a result of the traffic generated by the South Wokingham SDL and the associated Southern Distributor Road.

6.5 JOURNEY TIMES

6.5.1 A number of key journey time routes traversing Bracknell Forest Borough have been measured in the 2007 Base Year and 2026 Forecast Scenario models. The analysis demonstrates an overall improvement in both the AM peak and PM peak, in the 2026 Core Forecast (with the proposed developments and infrastructure schemes) compared to the Reference Case. There is shown to be an average reduction in journey time, across the fourteen assessed routes, of 10% in the AM peak and 5% in the PM peak.

6.5.2 The majority of the key routes assessed demonstrate a reduction in the overall journey time, although some are shown to increase and there are likely to be increases in delay at particular junctions, even where overall route journey time is shown to improve. It should be noted that the vast majority of routes experience a significant increase in journey time in 2026 over the 2007 Base Year, due to general growth in traffic demand on the highway network.

6.6 MITIGATION

6.6.1 A summary of junctions which may require redesign in order to improve the operation and reduce delays and journey times in the 2026 Core Forecast scenario is provided in Table 5.16.

Appendices, Figures & Tables

Appendix A Full Modelling Results

Full Modelling Results

The full list of screenline/cordon flow results are shown below in Tables A.1 and A.2 for the AM and PM peaks respectively.

Table A.1: AM Peak Screenline/Cordon Results

| Screenline/Cordon | 2007 Base Year | 2026 Ref Case | | | 2026 Core Forecast | | | | |
|---|----------------|---------------|--------------|-------------|--------------------|--------------|-------------|--------------|-------------|
| | Veh | Veh | Diff from BY | % Diff BY | Veh | Diff from BY | % Diff BY | Diff from RC | % Diff RC |
| Inner Cordon | | | | | | | | | |
| Inbound | | | | | | | | | |
| 3M Rbt (Binfield Rd SB) | 386 | 718 | 332 | 86% | 729 | 343 | 89% | 11 | 2% |
| 3M Rbt (Wokingham Road EB) | 1235 | 655 | -580 | -47% | 637 | -598 | -48% | -18 | -3% |
| Twin Bridges Rbt N (Downshire Way SB) | 561 | 515 | -46 | -8% | 614 | 53 | 9% | 99 | 19% |
| Twin Bridges Rbt N (Easthamstead Rd EB) | 321 | 507 | 186 | 58% | 539 | 218 | 68% | 32 | 6% |
| Twin Bridges Rbt S (Mill Lane NB) | 1734 | 1777 | 43 | 2% | 1940 | 206 | 12% | 163 | 9% |
| Horse & Groom Rbt (Rectory Lane EB) | 450 | 572 | 122 | 27% | 547 | 97 | 22% | -25 | -4% |
| Horse & Groom Rbt (A 322 Bagshot Rd NB) | 1990 | 2452 | 462 | 23% | 2644 | 654 | 33% | 192 | 8% |
| Horse & Groom Rbt (Lime Walk WB) | 26 | 49 | 23 | 88% | 51 | 25 | 96% | 2 | 4% |
| Horse & Groom Rbt (Broad Lane WB) | 455 | 726 | 271 | 60% | 823 | 368 | 81% | 97 | 13% |
| Millennium Rbt (London Rd WB) | 1194 | 1293 | 99 | 8% | 1196 | 2 | 0% | -97 | -8% |
| Millennium Rbt (Park Rd WB) | 458 | 422 | -36 | -8% | 496 | 38 | 8% | 74 | 16% |
| Millennium Rbt (Warfield Rd SB) | 548 | 426 | -122 | -22% | 483 | -65 | -12% | 57 | 13% |
| Total | 9358 | 10112 | 754 | 8% | 10699 | 1341 | 14% | 587 | 6% |
| Outbound | | | | | | | | | |
| 3M Rbt (Binfield Rd NB) | 276 | 756 | 480 | 174% | 625 | 349 | 126% | -131 | -17% |
| 3M Rbt (Wokingham Road WB) | 1093 | 1491 | 398 | 36% | 1225 | 132 | 12% | -266 | -18% |
| Twin Bridges Rbt N (Downshire Way NB) | 1028 | 1033 | 5 | 0% | 1074 | 46 | 4% | 41 | 4% |
| Twin Bridges Rbt N (Easthamstead Rd WB) | 571 | 631 | 60 | 11% | 494 | -77 | -13% | -137 | -22% |
| Twin Bridges Rbt S (Mill Lane SB) | 1297 | 1265 | -32 | -2% | 1065 | -232 | -18% | -200 | -16% |
| Horse & Groom Rbt (Rectory Lane WB) | 308 | 296 | -12 | -4% | 218 | -90 | -29% | -78 | -26% |
| Horse & Groom Rbt (A 322 Bagshot Rd SB) | 1265 | 1432 | 167 | 13% | 1822 | 557 | 44% | 390 | 27% |
| Horse & Groom Rbt (Lime Walk EB) | 18 | 47 | 29 | 161% | 57 | 39 | 217% | 10 | 21% |
| Horse & Groom Rbt (Broad Lane EB) | 376 | 425 | 49 | 13% | 463 | 87 | 23% | 38 | 9% |
| Millennium Rbt (London Rd EB) | 712 | 815 | 103 | 14% | 847 | 135 | 19% | 32 | 4% |
| Millennium Rbt (Park Rd EB) | 351 | 614 | 263 | 75% | 321 | -30 | -9% | -293 | -84% |
| Millennium Rbt (Warfield Rd NB) | 751 | 812 | 61 | 8% | 934 | 183 | 24% | 122 | 16% |
| Total | 8046 | 9617 | 1571 | 20% | 9145 | 1099 | 14% | -472 | -5% |
| Outer Cordon | | | | | | | | | |
| Inbound | | | | | | | | | |
| Newell Green SB (south of Warfield St) | 550 | 194 | -356 | -65% | 301 | -249 | -45% | 107 | 55% |
| Binfield Rd SB (north of Temple Way) | 699 | 1163 | 464 | 66% | 1031 | 332 | 47% | -132 | -19% |
| London Rd EB (east of Coppid Beech Rbt) | 1903 | 1642 | -261 | -14% | 1926 | 23 | 1% | 284 | 17% |
| Peacock Lane EB (west of Doncastle Way) | 610 | 438 | -172 | -28% | 509 | -101 | -17% | 71 | 16% |
| Nine Mile Ride EB (west of A3095) | 736 | 1175 | 439 | 60% | 1369 | 633 | 86% | 194 | 17% |
| A3095 NB (south of Nine Mile Ride) | 1628 | 1634 | 6 | 0% | 1672 | 44 | 3% | 38 | 2% |
| A322 NB (south of Nine Mile Ride) | 2187 | 1948 | -239 | -11% | 1947 | -240 | -11% | -1 | 0% |
| Swinley Rd NB (south of London Rd) | 385 | 350 | -35 | -9% | 390 | 5 | 1% | 40 | 11% |
| London Rd WB (east of Swinley Rd) | 1036 | 985 | -51 | -5% | 1040 | 4 | 0% | 55 | 6% |
| Locks Ride SB (north of Priory Rd) | 489 | 673 | 184 | 38% | 520 | 31 | 6% | -153 | -23% |
| Total | 10223 | 10202 | -21 | 0% | 10705 | 482 | 5% | 503 | 5% |
| Outbound | | | | | | | | | |
| Newell Green NB (south of Warfield St) | 872 | 634 | -238 | -27% | 36 | -836 | -96% | -598 | -69% |
| Binfield Rd NB (north of Temple Way) | 431 | 636 | 205 | 48% | 220 | -211 | -49% | -416 | -65% |
| London Rd WB (east of Coppid Beech Rbt) | 1324 | 2087 | 763 | 58% | 1958 | 634 | 48% | -129 | -6% |
| Peacock Lane WB (west of Doncastle Way) | 390 | 799 | 409 | 105% | 883 | 493 | 126% | 84 | 11% |
| Nine Mile Ride WB (west of A3095) | 729 | 821 | 92 | 13% | 834 | 105 | 14% | 13 | 2% |
| A3095 SB (south of Nine Mile Ride) | 1214 | 1875 | 661 | 54% | 1797 | 583 | 48% | -78 | -4% |
| A322 SB (south of Nine Mile Ride) | 1903 | 2216 | 313 | 16% | 2262 | 359 | 19% | 46 | 2% |
| Swinley Rd SB (south of London Rd) | 256 | 389 | 133 | 52% | 301 | 45 | 18% | -88 | -23% |
| London Rd EB (east of Swinley Rd) | 1121 | 1257 | 136 | 12% | 1247 | 126 | 11% | -10 | -1% |
| Locks Ride NB (north of Priory Rd) | 447 | 275 | -172 | -38% | 413 | -34 | -8% | 138 | 50% |
| Total | 8687 | 10989 | 2302 | 26% | 9951 | 1264 | 15% | -1038 | -9% |
| Central Screenline | | | | | | | | | |
| Northbound | | | | | | | | | |
| Doncastle Way NB (south of A329 Berkshire Way) | 1679 | 1266 | -413 | -25% | 394 | -1285 | -77% | -872 | -69% |
| Twin Bridges rbt NB (north of A329 Berkshire Way) | 2771 | 2266 | -505 | -18% | 2515 | -256 | -9% | 249 | 11% |
| Station Way NB (south of The Ring) | 467 | - | - | - | - | - | - | - | - |
| Broad Lane EB (east of Larges Bridge Drive) | 341 | 430 | 89 | 26% | 364 | 23 | 7% | -66 | -15% |
| Swinley Rd NB (north of A322 Bracknell Rd) | 872 | 960 | 88 | 10% | 1038 | 166 | 19% | 78 | 8% |
| Total | 5663 | 4922 | -741 | -13% | 4311 | -1352 | -24% | -611 | -12% |
| Southbound | | | | | | | | | |
| Doncastle Way SB (south of A329 Berkshire Way) | 1346 | 1070 | -276 | -21% | 1014 | -332 | -25% | -166 | -5% |
| Twin Bridges rbt SB (north of A329 Berkshire Way) | 1461 | 1358 | -103 | -7% | 1544 | 83 | 6% | 186 | 14% |
| Station Way SB (south of The Ring) | 112 | - | - | - | - | - | - | - | - |
| Broad Lane WB (east of Larges Bridge Drive) | 469 | 593 | 124 | 26% | 671 | 202 | 43% | 78 | 13% |
| Swinley Rd SB (north of A322 Bracknell Rd) | 694 | 796 | 102 | 15% | 809 | 115 | 17% | 13 | 2% |
| Total | 3970 | 3817 | -153 | -4% | 4038 | 68 | 2% | 221 | 6% |
| Railway Screenline | | | | | | | | | |
| Northbound | | | | | | | | | |
| Waterloo Rd WB (west of Peacock Lane) | 210 | 762 | 552 | 263% | 726 | 516 | 246% | -36 | -5% |
| A3095 Bagshot Rd NB (north of Horse & Groom rbt) | 1320 | 2353 | 1033 | 78% | 1691 | 371 | 28% | -662 | -28% |
| Ralphs Ride NB (south of Calfridus Way) | 542 | 1217 | 675 | 125% | 822 | 280 | 52% | -395 | -32% |
| New Forest Ride NB (south of Whitton Rd) | 788 | 1062 | 274 | 35% | 1067 | 279 | 35% | 5 | 0% |
| Swinley Rd NB (south of London Rd) | 385 | 350 | -35 | -9% | 390 | 5 | 1% | 40 | 11% |
| Kings Ride NB (south of London Rd) | 571 | 688 | 117 | 20% | 695 | 124 | 22% | 7 | 1% |
| Total | 3816 | 6432 | 2616 | 69% | 5391 | 1575 | 41% | -1041 | -16% |

| Screenline/Cordon | 2007 Base Year | 2026 Ref Case | | | 2026 Core Forecast | | | | |
|--|----------------|---------------|--------------|------------|--------------------|--------------|------------|--------------|-------------|
| | Veh | Veh | Diff from BY | % Diff BY | Veh | Diff from BY | % Diff BY | Diff from RC | % Diff RC |
| Southbound | | | | | | | | | |
| Waterloo Rd EB (west of Peacock Lane) | 132 | 35 | -97 | -73% | 309 | 177 | 134% | 274 | 783% |
| A3095 Bagshot Rd SB (north of Horse & Groom rbt) | 648 | 575 | -73 | -11% | 603 | -45 | -7% | 28 | 5% |
| Ralphs Ride SB (south of Calfridus Way) | 230 | 275 | 45 | 20% | 408 | 178 | 77% | 133 | 48% |
| New Forest Ride SB (south of Whitton Rd) | 195 | 196 | 1 | 1% | 149 | -46 | -24% | -47 | -24% |
| Swinley Rd SB (south of London Rd) | 256 | 389 | 133 | 52% | 301 | 45 | 18% | -88 | -23% |
| Kings Ride SB (south of London Rd) | 358 | 392 | 34 | 9% | 464 | 106 | 30% | 72 | 18% |
| Total | 1819 | 1862 | 43 | 2% | 2234 | 415 | 23% | 372 | 20% |
| A329/ A322/ A3095 | | | | | | | | | |
| Anti-Clockwise | | | | | | | | | |
| Millennium Way WB (east of 3M Rbt) | 968 | 1427 | 459 | 47% | 1359 | 391 | 40% | -68 | -5% |
| Skimped Hill Lane SB (south of 3M Rbt) | 803 | 524 | -279 | -35% | 573 | -230 | -29% | 49 | 9% |
| Twin Bridges Rbt N (Skimped Hill Lane WB) | 603 | 351 | -252 | -42% | 385 | -218 | -36% | 34 | 10% |
| Twin Bridges Rbt S (A322 Downshire Way EB) | 1269 | 1620 | 351 | 28% | 1570 | 301 | 24% | -50 | -3% |
| Horse & Groom Rbt (A322 Downshire Way EB) | 960 | 1403 | 443 | 46% | 1326 | 366 | 38% | -77 | -5% |
| Horse & Groom Rbt (A3095 NB) | 1883 | 2485 | 102 | 80% | 1826 | 443 | 32% | -659 | -27% |
| Millennium Rbt (Church Rd NB) | 595 | 1038 | 443 | 74% | 998 | 403 | 68% | -40 | -4% |
| Total | 6581 | 8848 | 2267 | 34% | 8037 | 1456 | 22% | -811 | -9% |
| Clockwise | | | | | | | | | |
| Millennium Way EB (east of 3M Rbt) | 1179 | 1332 | 153 | 13% | 1256 | 77 | 7% | -76 | -6% |
| Skimped Hill Lane NB (south of 3M Rbt) | 615 | 118 | 503 | 82% | 866 | 251 | 41% | -252 | -23% |
| Twin Bridges Rbt N (Skimped Hill Lane EB) | 1196 | 616 | -580 | -48% | 940 | -256 | -21% | 324 | 53% |
| Twin Bridges Rbt S (A322 Downshire Way WB) | 1750 | 1862 | 112 | 6% | 2206 | 456 | 26% | 344 | 18% |
| Horse & Groom Rbt (A322 Downshire Way WB) | 1178 | 1091 | -87 | -7% | 1610 | 432 | 37% | 519 | 48% |
| Horse & Groom Rbt (A3095 SB) | 648 | 575 | -73 | -11% | 603 | -45 | -7% | 28 | 5% |
| Millennium Rbt (Church Rd SB) | 699 | 547 | -152 | -22% | 591 | -108 | -15% | 44 | 8% |
| Total | 7265 | 7141 | -124 | -2% | 8072 | 807 | 11% | 931 | 13% |
| Northern Screenline | | | | | | | | | |
| Northbound | | | | | | | | | |
| Church Hill NB (south of Howe Lane) | 400 | 463 | 63 | 16% | 490 | 90 | 23% | 27 | 6% |
| A3095 Maidenhead Rd NB (south of A330) | 966 | 1378 | 412 | 43% | 1591 | 625 | 65% | 213 | 15% |
| Bracknell Rd NB (south of A330) | 424 | 996 | 572 | 135% | 504 | 80 | 19% | -492 | -49% |
| A332 MOUNTS HILL NB (north of Winkfield Rd) | 896 | 1327 | 431 | 48% | 1045 | 149 | 17% | -282 | -21% |
| Total | 2686 | 4164 | 1478 | 55% | 3630 | 944 | 35% | -534 | -13% |
| Southbound | | | | | | | | | |
| Church Hill SB (south of Howe Lane) | 394 | 499 | 105 | 27% | 601 | 207 | 53% | 102 | 20% |
| A3095 Maidenhead Rd SB (south of A330) | 606 | 397 | -209 | -34% | 427 | -179 | -30% | 30 | 8% |
| Bracknell Rd SB (south of A330) | 546 | 664 | 118 | 22% | 508 | -38 | -7% | -56 | -23% |
| A332 MOUNTS HILL SB (north of Winkfield Rd) | 540 | 413 | -127 | -24% | 419 | -121 | -22% | 6 | 1% |
| Total | 2086 | 1973 | -113 | -5% | 1955 | -131 | -6% | -18 | -1% |
| Sandhurst/Crowthorne Cordon | | | | | | | | | |
| Inbound | | | | | | | | | |
| Old Wokingham Rd SB (south of Nine Mile Ride) | 185 | 274 | 89 | 48% | 217 | 32 | 17% | -57 | -21% |
| Yateley Rd NB (south of A321 High St) | 483 | 582 | 99 | 20% | 474 | -9 | -2% | -108 | -19% |
| Swan Lane NB (south of A321 Yorktown Rd) | 348 | 376 | 28 | 8% | 304 | -44 | -13% | -72 | -19% |
| A321 Marshall Rd NB (north of A30) | 110 | 866 | -244 | -22% | 961 | -149 | -13% | 95 | 11% |
| Laundry Lane NB (north of A30) | 231 | 153 | -78 | -34% | 229 | -2 | -1% | 76 | 50% |
| Magdalene Rd NB (south of A3095) | 183 | 169 | -14 | -8% | 250 | 67 | 37% | 81 | 48% |
| A3095 Foresters Way SB (south of Bracknell Rd) | 720 | 1063 | 343 | 48% | 933 | 213 | 30% | -130 | -12% |
| Bracknell Rd SB (north of Old Wokingham Rd) | 644 | 1207 | 563 | 87% | 187 | 543 | 84% | -20 | -2% |
| Total | 3904 | 4690 | 786 | 20% | 4555 | 651 | 17% | -135 | -3% |
| Outbound | | | | | | | | | |
| Old Wokingham Rd NB (south of Nine Mile Ride) | 434 | 660 | 226 | 52% | 752 | 318 | 73% | 92 | 14% |
| Yateley Rd SB (south of A321 High St) | 315 | 419 | 104 | 33% | 352 | 37 | 12% | -67 | -16% |
| Swan Lane SB (south of A321 Yorktown Rd) | 270 | 405 | 135 | 50% | 242 | -28 | -10% | -163 | -40% |
| A321 Marshall Rd SB (north of A30) | 1073 | 1262 | 189 | 18% | 941 | -132 | -12% | -321 | -25% |
| Laundry Lane SB (north of A30) | 1047 | 1304 | 257 | 25% | 746 | -301 | -29% | -558 | -43% |
| Magdalene Rd SB (south of A3095) | 61 | 89 | 28 | 46% | 109 | 48 | 79% | 20 | 22% |
| A3095 Foresters Way NB (south of Bracknell Rd) | 1042 | 1022 | -20 | -2% | 1014 | -28 | -3% | -8 | -1% |
| Bracknell Rd NB (north of Old Wokingham Rd) | 698 | 975 | 277 | 40% | 959 | 261 | 37% | -16 | -2% |
| Total | 4940 | 6136 | 1196 | 24% | 5115 | 175 | 4% | -1021 | -17% |

Table A.2: PM Peak Screenline/Cordon Results

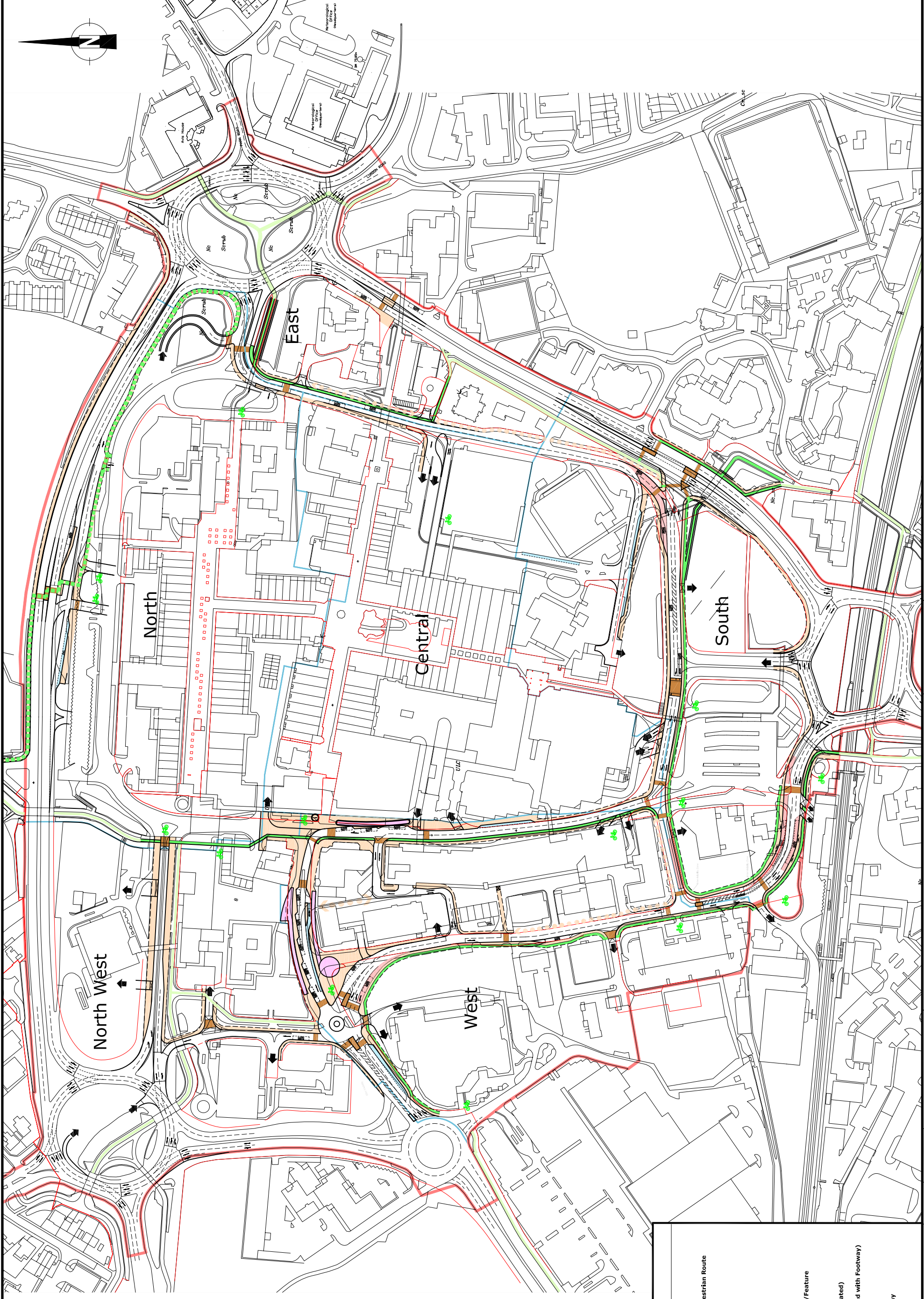
| Screenline/Cordon | 2007 Base Year | 2026 Ref Case | | | 2026 Core Forecast | | | | |
|---|----------------|---------------|--------------|------------|--------------------|--------------|-------------|--------------|-------------|
| | Veh | Veh | Diff from BY | % Diff BY | Veh | Diff from BY | % Diff BY | Diff from RC | % Diff RC |
| Inner Cordon | | | | | | | | | |
| Inbound | | | | | | | | | |
| 3M Rbt (Binfield Rd SB) | 289 | 807 | 518 | 179% | 770 | 481 | 166% | -37 | -5% |
| 3M Rbt (Wokingham Road EB) | 1359 | 1293 | -66 | -5% | 1260 | -99 | -7% | -33 | -3% |
| Twin Bridges Rbt N (Downshire Way SB) | 110 | 459 | -651 | -59% | 440 | -670 | -60% | -19 | -4% |
| Twin Bridges Rbt N (Easthamstead Rd EB) | 746 | 854 | 108 | 14% | 845 | 99 | 13% | -9 | -1% |
| Twin Bridges Rbt S (Mill Lane NB) | 1096 | 1070 | -26 | -2% | 1118 | 22 | 2% | 48 | 4% |
| Horse & Groom Rbt (Rectory Lane EB) | 244 | 481 | 237 | 97% | 456 | 212 | 87% | -25 | -5% |
| Horse & Groom Rbt (A 322 Bagshot Rd NB) | 166 | 970 | -646 | -40% | 962 | -654 | -40% | -8 | -1% |
| Horse & Groom Rbt (Lime Walk WB) | 34 | 44 | 10 | 29% | 50 | 16 | 47% | 6 | 14% |
| Horse & Groom Rbt (Broad Lane WB) | 370 | 988 | 618 | 167% | 1070 | 700 | 189% | 82 | 8% |
| Millennium Rbt (London Rd WB) | 954 | 922 | -32 | -3% | 903 | -51 | -5% | -19 | -2% |
| Millennium Rbt (Park Rd WB) | 445 | 339 | -106 | -24% | 306 | -139 | -31% | -33 | -10% |
| Millennium Rbt (Warfield Rd SB) | 353 | 496 | 143 | 41% | 556 | 203 | 58% | 60 | 12% |
| Total | 8616 | 8723 | 107 | 1% | 8736 | 120 | 1% | 13 | 0% |
| Outbound | | | | | | | | | |
| 3M Rbt (Binfield Rd NB) | 506 | 624 | 118 | 23% | 756 | 250 | 49% | 132 | 21% |
| 3M Rbt (Wokingham Road WB) | 1319 | 1441 | 122 | 9% | 1456 | 137 | 10% | 16 | 1% |
| Twin Bridges Rbt N (Downshire Way NB) | 763 | 892 | 129 | 17% | 891 | 128 | 17% | -1 | 0% |
| Twin Bridges Rbt N (Easthamstead Rd WB) | 61 | 59 | -2 | -3% | 62 | 1 | 2% | 3 | 5% |
| Twin Bridges Rbt S (Mill Lane SB) | 2196 | 1430 | -766 | -35% | 1517 | -679 | -31% | 87 | 6% |
| Horse & Groom Rbt (Rectory Lane WB) | 360 | 809 | 449 | 125% | 559 | 199 | 55% | -250 | -31% |
| Horse & Groom Rbt (A 322 Bagshot Rd SB) | 1899 | 2564 | 565 | 28% | 2617 | 618 | 31% | 53 | 2% |
| Horse & Groom Rbt (Lime Walk EB) | 47 | 120 | 73 | 155% | 120 | 73 | 155% | 0 | 0% |
| Horse & Groom Rbt (Broad Lane EB) | 451 | 489 | 38 | 8% | 620 | 169 | 37% | 131 | 27% |
| Millennium Rbt (London Rd EB) | 1125 | 1243 | 118 | 10% | 1311 | 186 | 17% | 68 | 5% |
| Millennium Rbt (Park Rd EB) | 468 | 350 | -118 | -25% | 307 | -161 | -34% | -43 | -12% |
| Millennium Rbt (Warfield Rd NB) | 781 | 557 | -224 | -29% | 579 | -202 | -26% | 22 | 4% |
| Total | 10076 | 10578 | 502 | 5% | 10795 | 719 | 7% | 217 | 2% |
| Outer Cordon | | | | | | | | | |
| Inbound | | | | | | | | | |
| Newell Green SB (south of Warfield St) | 676 | 353 | -323 | -48% | 332 | -344 | -51% | -21 | -6% |
| Binfield Rd SB (north of Temple Way) | 462 | 1400 | 938 | 203% | 864 | 402 | 87% | -536 | -38% |
| London Rd EB (east of Coppid Beech Rbt) | 1133 | 1314 | 181 | 16% | 1505 | 372 | 33% | 191 | 15% |
| Peacock Lane EB (west of Doncastle Way) | 245 | 492 | 247 | 101% | 115 | -130 | -53% | -377 | -77% |
| Nine Mile Ride EB (west of A3095) | 689 | 804 | 115 | 17% | 818 | 129 | 19% | 14 | 2% |
| A3095 NB (south of Nine Mile Ride) | 1136 | 1208 | 72 | 6% | 1357 | 221 | 19% | 149 | 12% |
| A322 NB (south of Nine Mile Ride) | 2717 | 2808 | 91 | 3% | 2521 | -196 | -7% | -287 | -10% |
| Swinley Rd NB (south of London Rd) | 294 | 460 | 166 | 56% | 433 | 139 | 47% | -27 | -6% |
| London Rd WB (east of Swinley Rd) | 1035 | 1064 | 29 | 3% | 1054 | 19 | 2% | -10 | -1% |
| Locks Ride SB (north of Priory Rd) | 647 | 1006 | 359 | 55% | 871 | 224 | 35% | -135 | -13% |
| Total | 9034 | 10909 | 1875 | 21% | 9870 | 836 | 9% | -1039 | -10% |
| Outbound | | | | | | | | | |
| Newell Green NB (south of Warfield St) | 539 | 394 | -145 | -27% | 70 | -469 | -87% | -324 | -82% |
| Binfield Rd NB (north of Temple Way) | 518 | 338 | -180 | -35% | 223 | -295 | -57% | -115 | -34% |
| London Rd WB (east of Coppid Beech Rbt) | 764 | 2007 | 243 | 14% | 2312 | 548 | 31% | 305 | 15% |
| Peacock Lane WB (west of Doncastle Way) | 951 | 625 | -326 | -34% | 624 | -327 | -34% | -1 | 0% |
| Nine Mile Ride WB (west of A3095) | 687 | 779 | 92 | 13% | 821 | 134 | 20% | 42 | 5% |
| A3095 SB (south of Nine Mile Ride) | 1846 | 1966 | 120 | 7% | 2070 | 224 | 12% | 104 | 5% |
| A322 SB (south of Nine Mile Ride) | 2270 | 2108 | -162 | -7% | 2227 | -43 | -2% | 119 | 6% |
| Swinley Rd SB (south of London Rd) | 188 | 237 | 49 | 26% | 262 | 74 | 39% | 25 | 11% |
| London Rd EB (east of Swinley Rd) | 966 | 979 | 13 | 1% | 1030 | 64 | 7% | 51 | 5% |
| Locks Ride NB (north of Priory Rd) | 443 | 193 | -250 | -56% | 343 | -100 | -23% | 150 | 78% |
| Total | 10172 | 9626 | -546 | -5% | 9982 | -190 | -2% | 356 | 4% |
| Central Screenline | | | | | | | | | |
| Northbound | | | | | | | | | |
| Doncastle Way NB (south of A329 Berkshire Way) | 1099 | 645 | -454 | -41% | 360 | -739 | -67% | -285 | -44% |
| Twin Bridges rbt NB (north of A329 Berkshire Way) | 1319 | 1504 | 185 | 14% | 1703 | 384 | 29% | 199 | 13% |
| Station Way NB (south of The Ring) | 285 | - | - | - | - | - | - | - | - |
| Broad Lane EB (east of Larges Bridge Drive) | 472 | 406 | -66 | -14% | 516 | 44 | 9% | 110 | 27% |
| Swinley Rd NB (north of A322 Bracknell Rd) | 619 | 879 | 260 | 42% | 996 | 377 | 61% | 117 | 13% |
| Total | 3509 | 3434 | -75 | -2% | 3575 | 66 | 2% | 141 | 4% |
| Southbound | | | | | | | | | |
| Doncastle Way SB (south of A329 Berkshire Way) | 1095 | 868 | -227 | -21% | 645 | -450 | -41% | -223 | -26% |
| Twin Bridges rbt SB (north of A329 Berkshire Way) | 2580 | 1887 | -693 | -27% | 1849 | -731 | -28% | -38 | -2% |
| Station Way SB (south of The Ring) | 411 | - | - | - | - | - | - | - | - |
| Broad Lane WB (east of Larges Bridge Drive) | 204 | 703 | 499 | 245% | 711 | 507 | 249% | 8 | 1% |
| Swinley Rd SB (north of A322 Bracknell Rd) | 750 | 877 | 127 | 17% | 705 | -45 | -6% | -172 | -20% |
| Total | 4629 | 4335 | -294 | -6% | 3910 | -719 | -16% | -425 | -10% |
| Railway Screenline | | | | | | | | | |
| Northbound | | | | | | | | | |
| Waterloo Rd WB (west of Peacock Lane) | 198 | 709 | 511 | 258% | 740 | 542 | 274% | 31 | 4% |
| A3095 Bagshot Rd NB (north of Horse & Groom rbt) | 674 | 558 | -116 | -17% | 573 | -101 | -15% | 15 | 3% |
| Ralphs Ride NB (south of Caltridus Way) | 326 | 796 | 470 | 144% | 814 | 488 | 150% | 18 | 2% |
| New Forest Ride NB (south of Whitton Rd) | 340 | 430 | 90 | 26% | 458 | 118 | 35% | 28 | 7% |
| Swinley Rd NB (south of London Rd) | 294 | 460 | 166 | 56% | 433 | 139 | 47% | -27 | -6% |
| Kings Ride NB (south of London Rd) | 349 | 441 | 92 | 26% | 608 | 259 | 74% | 167 | 38% |
| Total | 2181 | 3394 | 1213 | 56% | 3626 | 1445 | 66% | 232 | 7% |

| Screenline/Cordon | 2007 Base Year | 2026 Ref Case | | | 2026 Core Forecast | | | | |
|--|----------------|---------------|--------------|------------|--------------------|--------------|------------|--------------|-------------|
| | Veh | Veh | Diff from BY | % Diff BY | Veh | Diff from BY | % Diff BY | Diff from RC | % Diff RC |
| Southbound | | | | | | | | | |
| Waterloo Rd EB (west of Peacock Lane) | 151 | 319 | 168 | 11% | 409 | 258 | 17% | 90 | 28% |
| A3095 Bagshot Rd SB (north of Horse & Groom rbt) | 1073 | 1307 | 234 | 22% | 1272 | 199 | 19% | -35 | -3% |
| Ralphs Ride SB (south of Calfridus Way) | 689 | 845 | 156 | 23% | 857 | 168 | 24% | 12 | 1% |
| New Forest Ride SB (south of Whitton Rd) | 591 | 899 | 308 | 52% | 717 | 126 | 21% | -182 | -20% |
| Swinley Rd SB (south of London Rd) | 188 | 237 | 49 | 26% | 262 | 74 | 39% | 25 | 1% |
| Kings Ride SB (south of London Rd) | 654 | 750 | 96 | 15% | 560 | -94 | -14% | -190 | -25% |
| Total | 3346 | 4357 | 1011 | 30% | 4077 | 731 | 22% | -280 | -6% |
| A329/ A322/ A3095 | | | | | | | | | |
| Anti-Clockwise | | | | | | | | | |
| Millennium Way WB (east of 3M Rbt) | 886 | 1099 | 213 | 24% | 1075 | 189 | 21% | -24 | -2% |
| Skimped Hill Lane SB (south of 3M Rbt) | 692 | 809 | 117 | 17% | 648 | -44 | -6% | -161 | -20% |
| Twin Bridges Rbt N (Skimped Hill Lane WB) | 729 | 566 | -163 | -22% | 564 | -165 | -23% | -2 | 0% |
| Twin Bridges Rbt S (A322 Downshire Way EB) | 1587 | 2581 | 994 | 63% | 2595 | 1008 | 64% | 14 | 1% |
| Horse & Groom Rbt (A322 Downshire Way EB) | 1605 | 2517 | 912 | 57% | 2551 | 946 | 59% | 34 | 1% |
| Horse & Groom Rbt (A3095 NB) | 688 | 618 | -70 | -10% | 633 | -55 | -8% | 15 | 2% |
| Millennium Rbt (Church Rd NB) | 758 | 727 | -31 | -4% | 725 | -33 | -4% | -2 | 0% |
| Total | 6945 | 8917 | 1972 | 28% | 8791 | 1846 | 27% | -126 | -1% |
| Clockwise | | | | | | | | | |
| Millennium Way EB (east of 3M Rbt) | 1173 | 1674 | 501 | 43% | 1757 | 584 | 50% | 83 | 5% |
| Skimped Hill Lane NB (south of 3M Rbt) | 670 | 682 | 12 | 2% | 871 | 201 | 30% | 189 | 28% |
| Twin Bridges Rbt N (Skimped Hill Lane EB) | 500 | 545 | 45 | 9% | 751 | 251 | 50% | 206 | 38% |
| Twin Bridges Rbt S (A322 Downshire Way WB) | 1515 | 1855 | 340 | 22% | 2123 | 608 | 40% | 268 | 14% |
| Horse & Groom Rbt (A322 Downshire Way WB) | 1398 | 1707 | 309 | 22% | 1812 | 414 | 30% | 105 | 6% |
| Horse & Groom Rbt (A3095 SB) | 1073 | 1307 | 234 | 22% | 1272 | 199 | 19% | -35 | -3% |
| Millennium Rbt (Church Rd SB) | 547 | 1059 | 512 | 94% | 1112 | 565 | 103% | 53 | 5% |
| Total | 6876 | 8829 | 1953 | 28% | 9698 | 2822 | 41% | 869 | 10% |
| Northern Screenline | | | | | | | | | |
| Northbound | | | | | | | | | |
| Church Hill NB (south of Howe Lane) | 342 | 365 | 23 | 7% | 465 | 123 | 36% | 100 | 27% |
| A3095 Maidenhead Rd NB (south of A330) | 677 | 555 | -122 | -18% | 618 | -59 | -9% | 63 | 1% |
| Bracknell Rd NB (south of A330) | 364 | 526 | 162 | 45% | 336 | -28 | -8% | -190 | -36% |
| A332 MOUNTS HILL NB (north of Winkfield Rd) | 645 | 457 | -188 | -29% | 493 | -152 | -24% | 36 | 8% |
| Total | 2028 | 1903 | -125 | -6% | 1912 | -116 | -6% | 9 | 0% |
| Southbound | | | | | | | | | |
| Church Hill SB (south of Howe Lane) | 177 | 542 | 365 | 206% | 632 | 455 | 257% | 90 | 17% |
| A3095 Maidenhead Rd SB (south of A330) | 809 | 912 | 103 | 13% | 1165 | 356 | 44% | 253 | 28% |
| Bracknell Rd SB (south of A330) | 836 | 1475 | 639 | 76% | 884 | 48 | 6% | -591 | -40% |
| A332 MOUNTS HILL SB (north of Winkfield Rd) | 864 | 894 | 30 | 3% | 788 | -76 | -9% | -106 | -12% |
| Total | 2686 | 3823 | 1137 | 42% | 3469 | 783 | 29% | -354 | -9% |
| Sandhurst/Crowthorne Cordon | | | | | | | | | |
| Inbound | | | | | | | | | |
| Old Wokingham Rd SB (south of Nine Mile Ride) | 589 | 776 | 187 | 32% | 826 | 237 | 40% | 50 | 6% |
| Yateley Rd NB (south of A321 High St) | 398 | 394 | -4 | -1% | 380 | -18 | -5% | -14 | -4% |
| Swan Lane NB (south of A321 Yorktown Rd) | 383 | 622 | 239 | 62% | 365 | -18 | -5% | -257 | -41% |
| A321 Marshall Rd NB (north of A30) | 1262 | 1225 | -37 | -3% | 1036 | -226 | -18% | -189 | -15% |
| Laundry Lane NB (north of A30) | 407 | 705 | 298 | 73% | 374 | -33 | -8% | -331 | -47% |
| Magdalene Rd NB (south of A3095) | 95 | 97 | 2 | 2% | 116 | 21 | 22% | 19 | 20% |
| A3095 Foresters Way SB (south of Bracknell Rd) | 1353 | 1012 | -341 | -25% | 1278 | -75 | -6% | 266 | 26% |
| Bracknell Rd SB (north of Old Wokingham Rd) | 623 | 1468 | 845 | 136% | 1204 | 581 | 93% | -264 | -18% |
| Total | 5110 | 6299 | 1189 | 23% | 5579 | 469 | 9% | -720 | -11% |
| Outbound | | | | | | | | | |
| Old Wokingham Rd NB (south of Nine Mile Ride) | 154 | 758 | 604 | 392% | 475 | 321 | 208% | -283 | -37% |
| Yateley Rd SB (south of A321 High St) | 409 | 539 | 130 | 32% | 419 | 10 | 2% | -120 | -22% |
| Swan Lane SB (south of A321 Yorktown Rd) | 454 | 426 | -28 | -6% | 390 | -64 | -14% | -36 | -8% |
| A321 Marshall Rd SB (north of A30) | 1031 | 763 | -268 | -26% | 925 | -106 | -10% | 162 | 21% |
| Laundry Lane SB (north of A30) | 607 | 321 | -286 | -47% | 371 | -236 | -39% | 50 | 16% |
| Magdalene Rd SB (south of A3095) | 110 | 145 | 35 | 32% | 124 | 14 | 13% | -21 | -14% |
| A3095 Foresters Way NB (south of Bracknell Rd) | 730 | 951 | 221 | 30% | 882 | 152 | 21% | -69 | -7% |
| Bracknell Rd NB (north of Old Wokingham Rd) | 549 | 786 | 237 | 43% | 895 | 346 | 63% | 109 | 14% |
| Total | 4044 | 4689 | 645 | 16% | 4481 | 437 | 11% | -208 | -4% |

Appendix B BFB Forecast Junction Layouts

BFB Forecast Junction Layouts: 2026 Reference Case

The layout plans of BFB highway schemes included in the 2026 Reference Case, are displayed in this section.



Key

- Bus Station Building
- Indicative Retained Pedestrian Route
- Cycle Parking
- Taxi Bay
- Highway Boundaries
- Private Access Way
- New Principle Kerbline
- Other Highway Marking/Feature
- Bus Stop/Lane
- New Cycle Route (Dedicated)
- New Cycle Route (Shared with Footway)
- New Footway
- Notional Back of Footway
- Existing Cycle Route

Client

Scale
1:1000 at A0
1:2000 at A2

| | | | |
|----------|---------------|--------------|------------------------|
| Drawn | JCT/DR | Contract No. | C33595 |
| Designed | JCT/TFC/CW/MT | Drawing No. | C33595/00/D/013 |
| Checked | JCT/TFC | Date Drawn | Sept 04 |
| Approved | TFC | Date Issued | Sept 04 |

Project
Bracknell Town Centre Regeneration

Title
Core Area Transportation Network

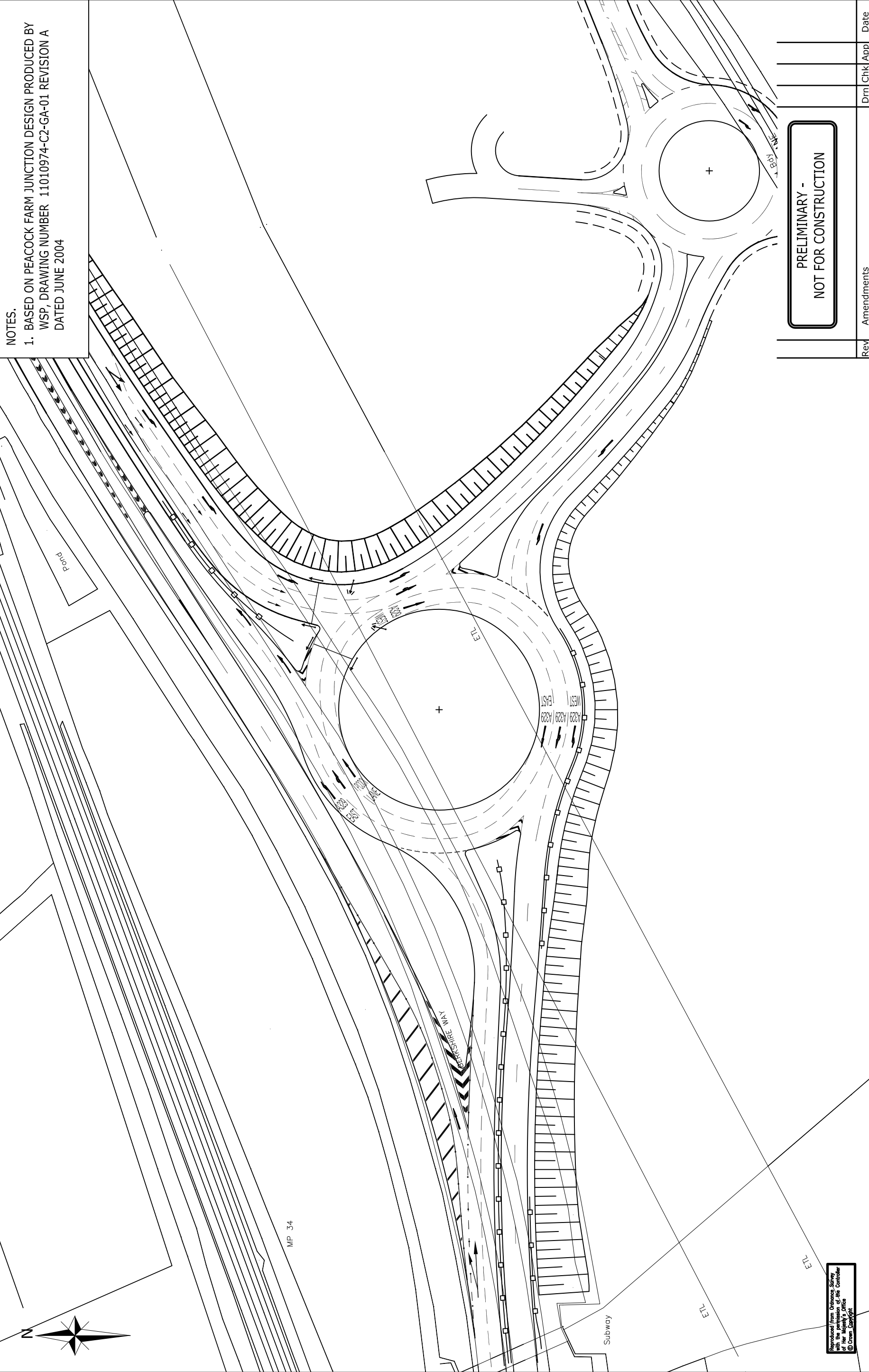
Rev. **N**

Added bus stop and presignal arrangement adjacent to NW42
Added footway adjacent to Ringside
Added Millennium Way Cycle Option 3

28-09-04

Rev N

Date



NOTES.
 1. BASED ON PEACOCK FARM JUNCTION DESIGN PRODUCED BY WSP, DRAWING NUMBER 11010974-C2-GA-01 REVISION A DATED JUNE 2004

PRELIMINARY -
 NOT FOR CONSTRUCTION

| Rev | Amendments | Date | Drn | Chk | App | Date |
|--------|------------|------------|------------|----------|-----|------|
| | | | | | | |
| Scale | 1:1000 | Date | 27.07.04 | Designed | ML | |
| Drawn | JF | Checked | ML | Approved | AW | |
| Job No | 112000 | Drawing No | 112000-218 | Rev | | |

Client
BRACKNELL REGENERATION PARTNERSHIP

Job Title
BRACKNELL TOWN CENTRE REGENERATION
 Drawing Title
JUNCTION 18 - PEACOCK FARM ROUNDABOUT - PROPOSED PARTIALLY SIGNALISED LAYOUT

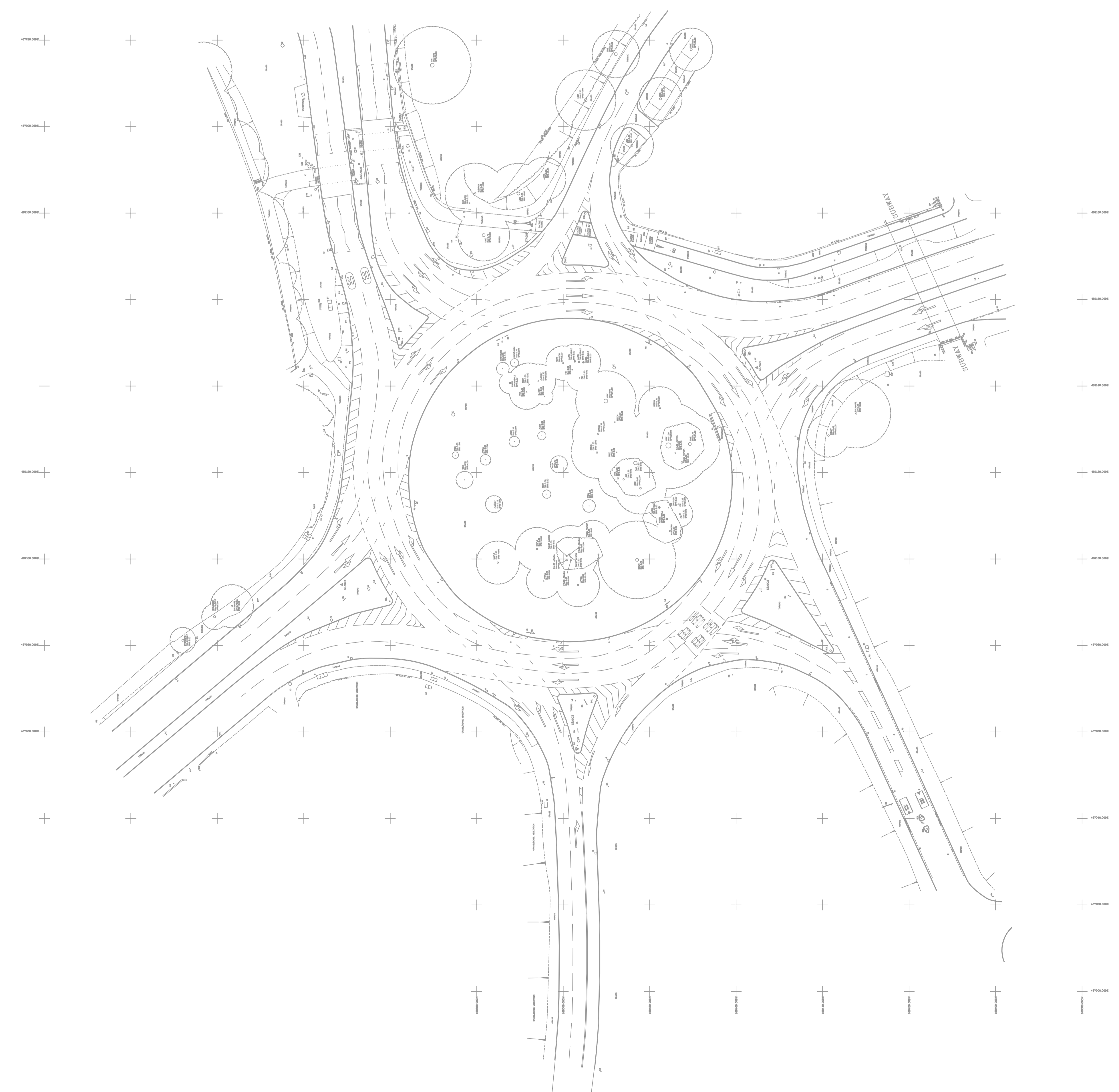
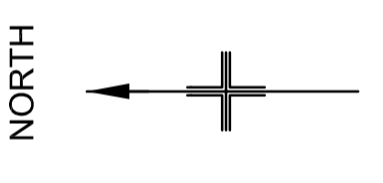
Newcombe House
 43-45 Notting Hill Gate
 London
 W11 3QD
 Telephone: 020 7309 9055
 Fax: 020 7309 9056
 Email: london@buchanan-ce.co.uk
 Web: www.buchanan-ce.com



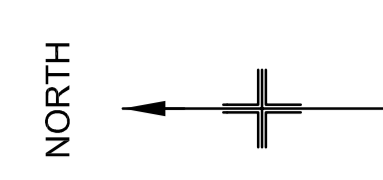
Buchanan Consulting Engineers

Reproduced from Ordnance Survey with the permission of His Controller of Her Majesty's Stationery Office © Crown Copyright

Notes:



EXISTING LAYOUT

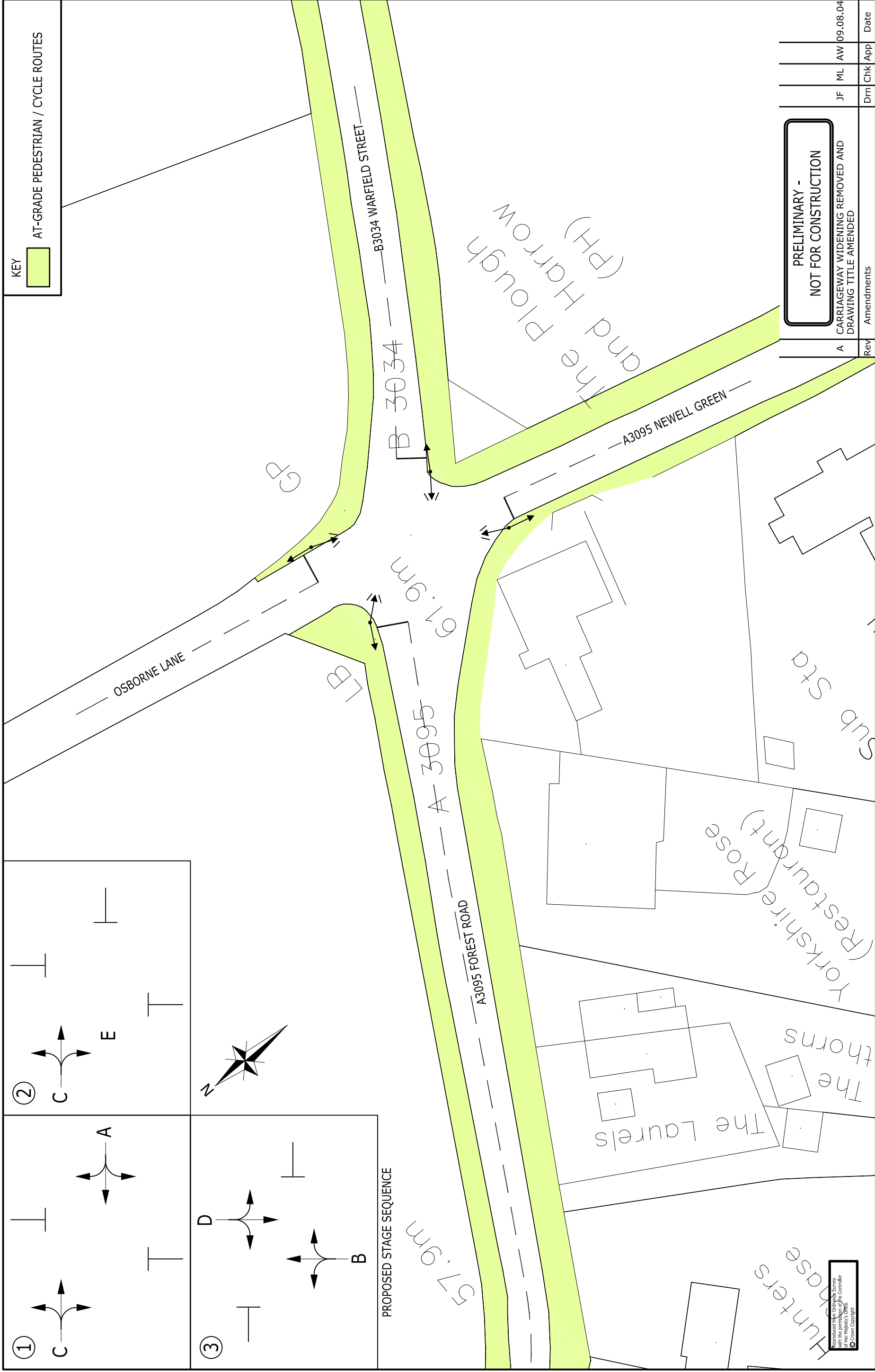


| Amendment | Date | Initials |
|-----------|------|----------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

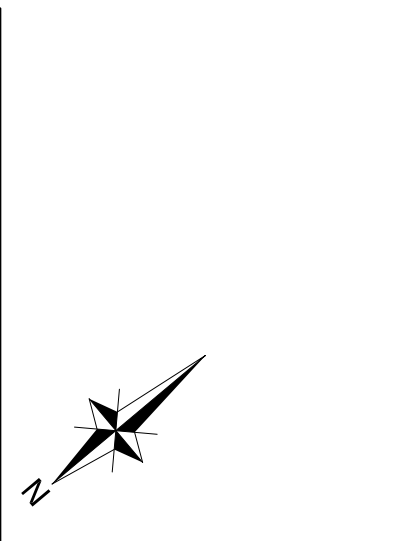
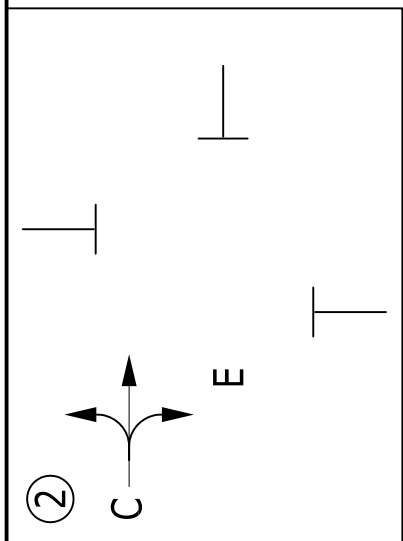
PROPOSED LAYOUT

| | |
|--|--|
| ENVIRONMENT, CULTURE & COMMUNITIES Traffic & Safety Group | |
| Project title | A329 / A322 CORRIDOR STUDY |
| Drawing title | HORSE & GROOM ROUNDABOUT PROPOSED SIGNALISED ROUNDABOUT |
| Prepared by | AMT |
| Checked by | NM |
| Scale | 1:500 |
| Date | AUG. 2010 |
| Project Number | 4881001 |
| Drawing Number | |
| Author | |
| Checker | |
| | |





KEY
 AT-GRADE PEDESTRIAN / CYCLE ROUTES



PROPOSED STAGE SEQUENCE

PRELIMINARY - NOT FOR CONSTRUCTION

| | | | |
|-----|--|----------|-------|
| Rev | Amendments | Date | Scale |
| A | CARRIAGEWAY WIDENING REMOVED AND DRAWING TITLE AMENDED | 28.07.04 | 1:500 |

| | | | |
|----------|--------|------------|------------|
| Drn | Chk | App | Date |
| JF | ML | AW | 09.08.04 |
| Job No | 112000 | Drawing No | 112000-234 |
| Drawn | JF | Checked | ML |
| Approved | AW | Designed | ML |

Client
BRACKNELL TOWN CENTRE REGENERATION
PARTNERSHIP

Job Title
BRACKNELL TOWN CENTRE REGENERATION
 Drawing Title
JUNCTION 34 - A3095 NEWELL GREEN / A3095 FOREST ROAD / B3034 WARFIELD STREET / OSBORNE LANE - PROPOSED SIGNALS LAYOUT

Newcombe House
 43-45 Notting Hill Gate
 London
 W11 3QD
 Telephone: 020 7309 9055
 Fax: 020 7309 9056
 Email: london@buchanan-ce.co.uk
 Web: www.buchanan-ce.com



Buchanan Consulting Engineers

Reproduced from Ordnance Survey with the permission of the Controller Her Majesty's Stationery Office © Crown Copyright

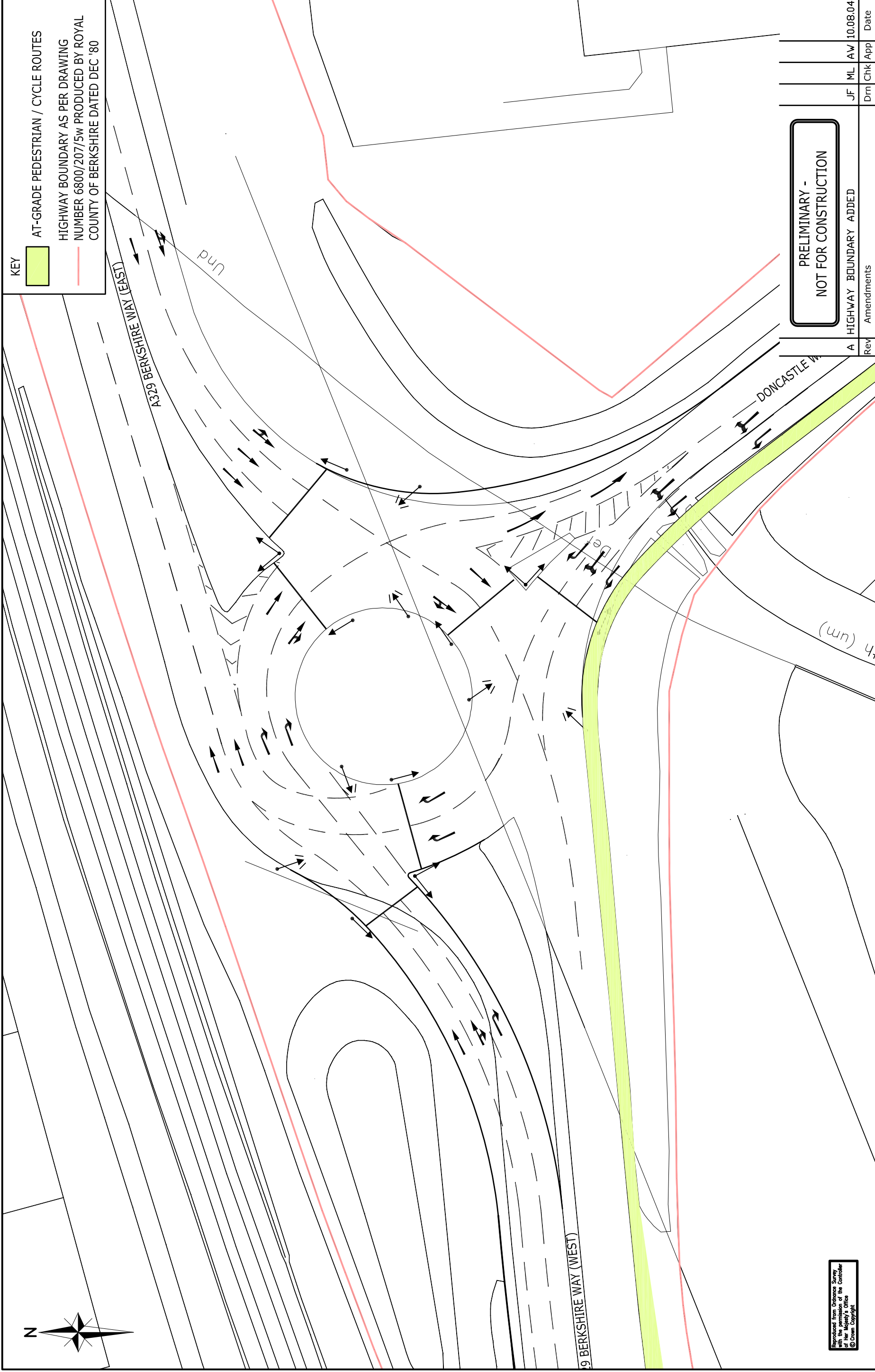
BFB Forecast Junction Layouts: 2026 Core Forecast

The layout plans of BFB highway schemes included in the 2026 Core Forecast, are displayed in this section.



KEY

- AT-GRADE PEDESTRIAN / CYCLE ROUTES
- HIGHWAY BOUNDARY AS PER DRAWING NUMBER 6800/207/5w PRODUCED BY ROYAL COUNTY OF BERKSHIRE DATED DEC '80



Reproduced from Ordnance Survey with the permission of the Controller of Her Majesty's Stationery Office © Crown Copyright

PRELIMINARY - NOT FOR CONSTRUCTION

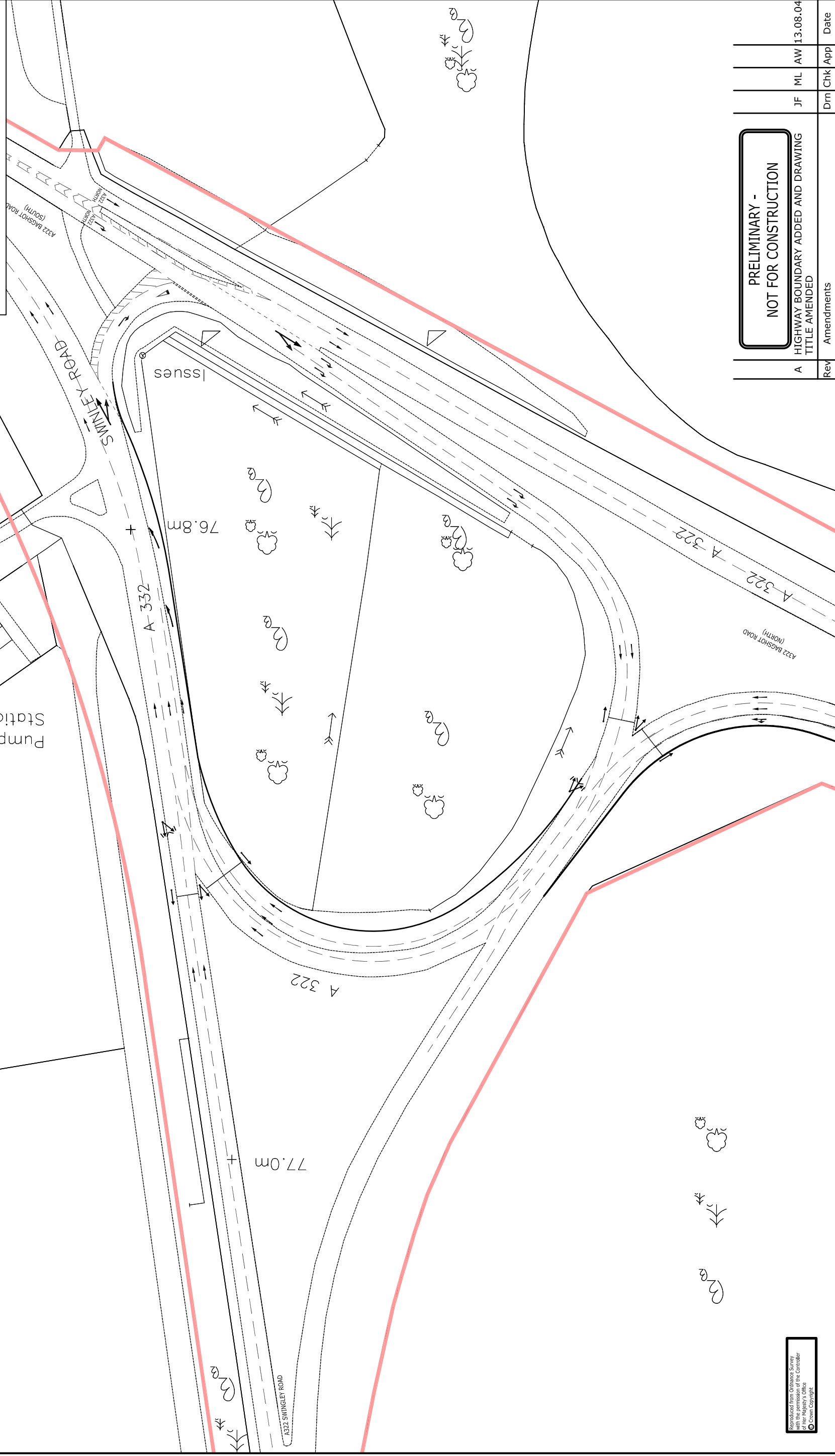
| | | | |
|--|--|---|---------------------------------|
| BRACKNELL TOWN CENTRE REGENERATION Job Title | | BRACKNELL REGENERATION PARTNERSHIP Client | |
| JUNCTION 19 - DONCASTLE WAY ROUNDABOUT - PROPOSED SIGNALISED IMPROVEMENTS Drawing Title | | Scale 1:500 | Date 27.07.04 |
| Newcombe House 43-45 Notting Hill Gate London W11 3QD Telephone: 020 7309 9055 Fax: 020 7309 9056 Email: london@buchanan-ce.co.uk Web: www.buchanan-ce.com | | Drawn JF | Checked ML |
| Buchanan Consulting Engineers | | Job No 112000 | Drawing No 112000-219 |
| Designated ML | | Approved AW | Rev A |
| Amendments A HIGHWAY BOUNDARY ADDED | | JF ML AW 10.08.04 | Date |



Key.

HIGHWAY BOUNDARY AS PER DRAWING
NUMBER 6490/4 - SWINLEY ROAD (A322)
JUNCTION PRODUCED BY EASTHAMPTSTEAD
DISTRICT COUNCIL

Pumping
Station



Reproduced from Ordnance Survey
with the permission of the Controller
of Her Majesty's Stationery Office
© Crown Copyright



**Buchanan
Consulting
Engineers**

Newcombe House
43-45 Notting Hill Gate
London
W11 3QD

Telephone: 020 7309 9055
Fax: 020 7309 9056
Email: london@buchanan-ce.co.uk
Web: www.buchanan-ce.com

Job Title

**BRACKNELL TOWN CENTRE
REGENERATION**

Drawing Title

**JUNCTION 31 - SWINLEY BOTTOM GYRATORY
- PROPOSED SIGNALISED LAYOUT**

Client

**BRACKNELL REGENERATION
PARTNERSHIP**

Scale

1:1000

Date

28.07.04

Drawn

JF

Checked

ML

Approved

AW

Job No

112000

Drawing No

112000-231

Designed

ML

Drn

Chk

App

Date

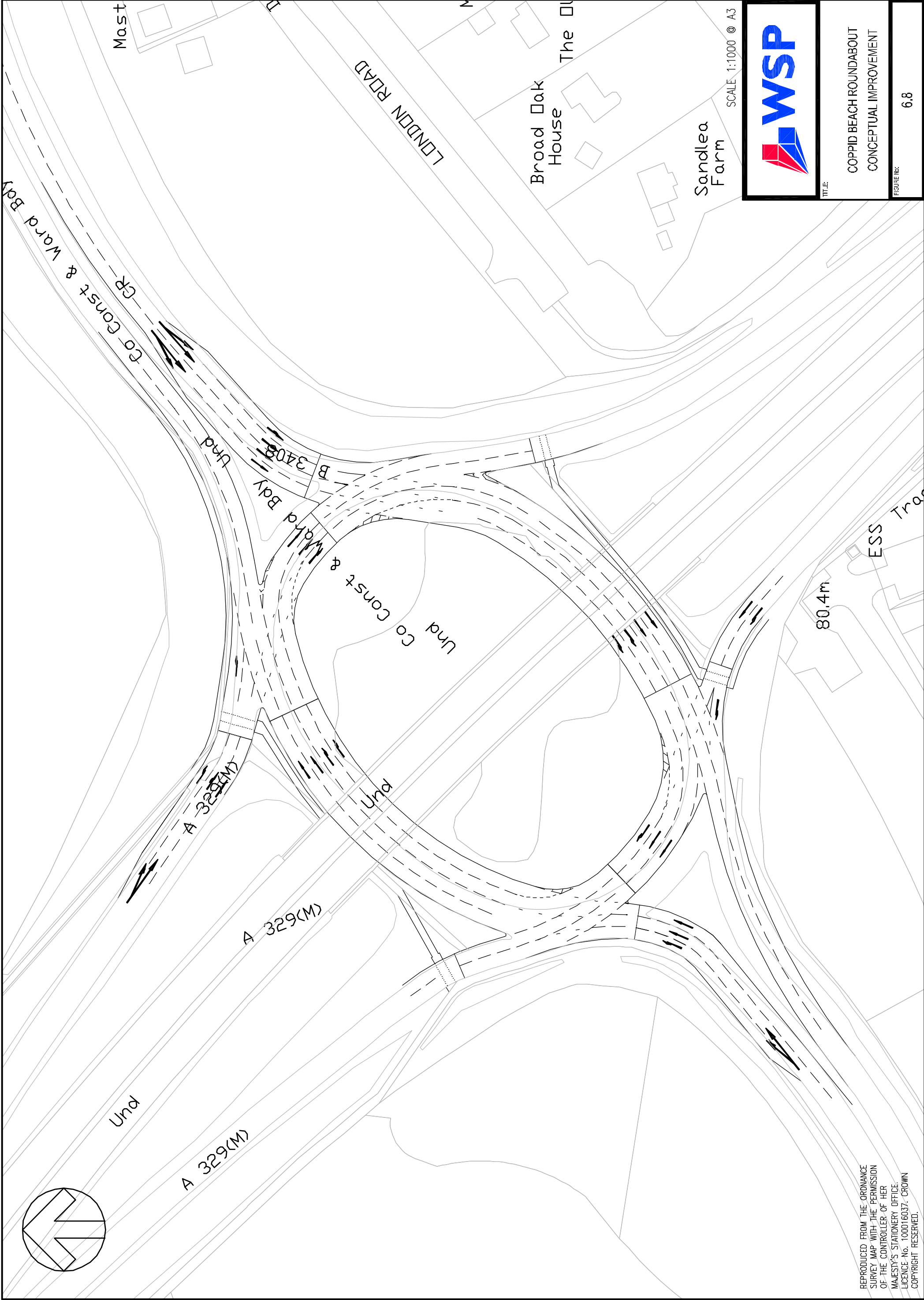
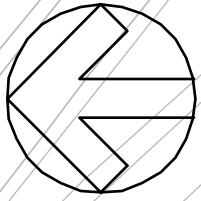
JF ML AW 13.08.04

**PRELIMINARY -
NOT FOR CONSTRUCTION**

A
HIGHWAY BOUNDARY ADDED AND DRAWING
TITLE AMENDED

Rev

Amendments



Und

A 329(M)

A 329(M)

Und

Und Co Const & Word Bdy

Und

B 3408

Mast

Co Const & Word Bdy

GR

LONDON ROAD

Broad Oak House The O

Sandlea Farm

SCALE 1:1000 @ A3



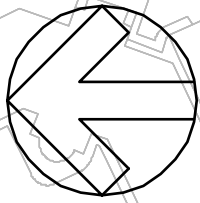
TITLE

COPPID BEACH ROUNDABOUT
CONCEPTUAL IMPROVEMENT

FIGURE NO:

6.8

REPRODUCED FROM THE ORDINANCE
SURVEY MAP WITH THE PERMISSION
OF THE CONTROLLER OF HER
MAJESTY'S STATIONERY OFFICE.
LICENCE No. 100016037. CROWN
COPYRIGHT RESERVED.



3m FOOTWAY/ CYCLEWAY

3m FOOTWAY/ CYCLEWAY

2m FOOTWAY

3m FOOTWAY/ CYCLEWAY



SCALE 1:1000 @ A3



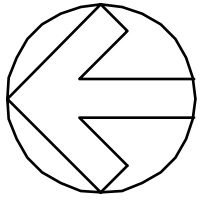
TITLE:

BEEHIVE ROAD ROUNDABOUT
CONCEPTUAL IMPROVEMENTS

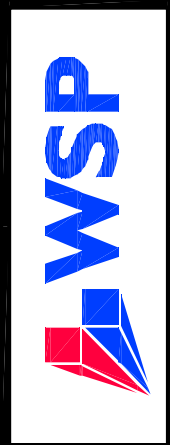
FIGURE NO:

6.1

REPRODUCED FROM THE ORDNANCE
SURVEY MAP WITH THE PERMISSION
OF THE CONTROLLER-OF-HER
MAJESTY'S STATUTORY OFFICE.
LICENSE NO. 09016037. CROWN
COPYRIGHT RESERVED.



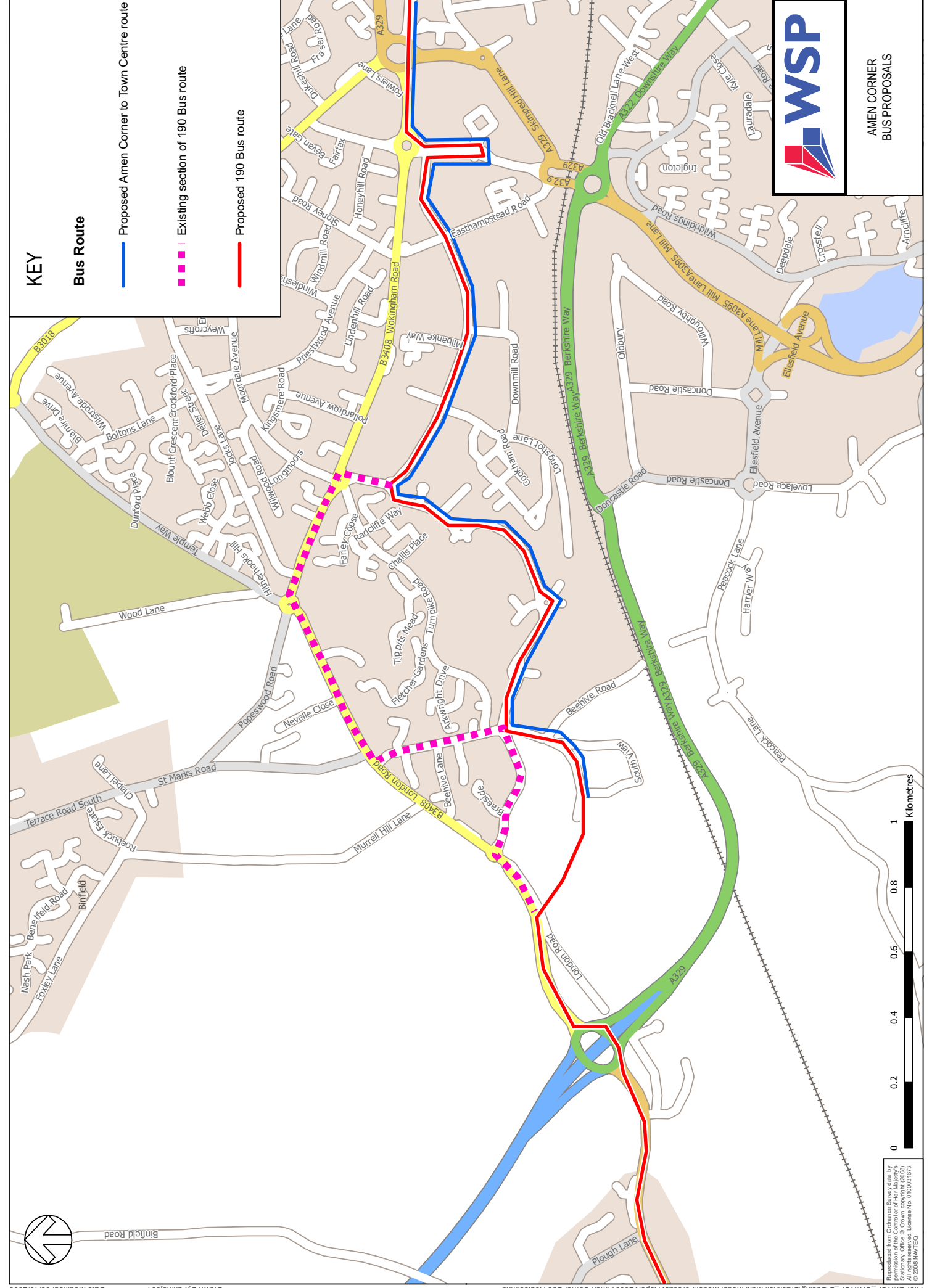
SCALE 1:2000 @ A3



TITLE
POTENTIAL ROAD
ALIGNMENT

FIGURE NO:
6.3

REPRODUCED FROM THE ORDINANCE
SURVEY MAP WITH THE PERMISSION
OF THE CONTROLLER OF HER
MAJESTY'S STATIONERY OFFICE.
LICENCE No. 100016037. CROWN
COPYRIGHT RESERVED.



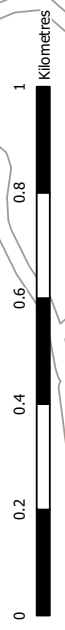
KEY

Bus Route

- Proposed Amen Corner to Town Centre route
- - - Existing section of 190 Bus route
- Proposed 190 Bus route



**AMEN CORNER
BUS PROPOSALS**



Information contained herein is the property of WSP and is provided to you under license by the Stationery Office. © Crown copyright (2008). All rights reserved. License No. 0100051873. © 2008 WSP Ltd.

