

# Assessment of the Amen Corner Development

Project note:		
Technical note:		N:\Bracknell Multi-Modal Model\Amen Corner - Further Modelling\TEXT\REPORTS\Amen Corner VISUM Assessment\Amen Corner_Assessment v7.0.doc

Version	Date	By	Reviewed by	Authorised (TN only)	Notes:
1.0	22/10/2008	SJ	NL		
2.0	29/10/08	SJ	NL		
3.2	05/11/2008	SJ	MJ	TC	Issued in draft to client for comment
3.3	11/11/2008	SJ	SJ	TC	Issued as final
4.0	24/12/2008	SJ	SJ	PD	Issued for sensitivity test
5.0	09/01/2009	TC	TC	TC	Issued after comment from HA
6.0	03/08/2009	MJ	SJ	SDR	Revised assessment on revalidated Base model
7.0	02/09/2009	MJ/SJ	SDR	SDR	Updated following comments from BFC
<b>STATUS</b>	<b>FINAL</b>				



## RECOMMENDATIONS

### ***Model Assessment Overview***

The findings of this assessment on the impacts of the Amen Corner development support the recommendations of mitigation measures provided in the Amen Corner Transport Assessment (TA). These measures include junction improvements at the following locations:

- signalisation of Coppid Beech roundabout
- realignment and signalisation of the John Nike Way / London Road junction (these works do not form part of the development but form part of the Council's general improvements to the road network and are currently being carried out in advance and in isolation from the development)
- realignment and signalisation of the Beehive Road / John Nike Way junction
- a new spine road joining Cain Road with London Road, passing through the development to provide access to the site and to relieve pressure on John Nike Way

Other mitigation measures can be summarised as:

- redirection of the 190 bus service and a dedicated shuttle service to provide a 10min frequency of service between Bracknell Town centre and the site, to be promoted within the site Travel Plan
- pedestrian/cycle infrastructure improvements
- M4 Junction 10 improvements to a scale attributable to the likely impact of the Area Action Plan (AAP) traffic

The modelling assessment highlights that both the 'with' and 'without development' scenarios modelled in the 2016, 2021 and 2026 forecast years show that the particular junctions highlighted in the Amen Corner TA (listed above) require improvement measures, in the main as a result of overall traffic growth. With the implementation of the junction improvements at Coppid Beech and John Nike Way, they perform much more efficiently. Details of the model assessment around the development site area are provided in section 4.

The analysis identifies the likely impact on M4 Junction 10 as a result of overall network growth as well as the Amen Corner development individually. This indicates that the development itself generates a relatively small proportion of the overall impact on the junction. There are ongoing policy discussions which consider this junction as part of Regional Spatial Strategies (RSS), any mitigation measures could be co-ordinated by the Highways Agency or the Regional Planning Body with contributions made by a series of developments including Amen Corner. This is discussed in more detail below.

### ***Current Policy for Improvements***

Planning Policy Statement (PPS) PPS12 states that 'Regional Spatial Strategies' (RSS) provide "the overall spatial vision for the entire region, identifying the broad locations for growth, often by identification of sub-regions, and major infrastructure requirements...". It goes on to explain "The Core Strategy should be supported by evidence of what physical, social and green infrastructure is needed to enable the amount of development proposed for the area, taking account of its type and distribution. This evidence should cover who will provide the infrastructure and when it will be provided".

PPS11 states that "The RSS should provide a broad development strategy for the region..." including transport. It goes on to suggest that "those responsible for relevant regional strategies... including representation from organisations responsible for the planning and funding of key infrastructure and services critical to RSS delivery" should produce an agreed implementation plan. PPS11 suggests that the implementation plan should identify "which organisation(s) are responsible for delivery" so that it is possible to inform "strategies, plans and programmes" that will be delivered



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by agencies such as the Highways Agency and Network Rail. In April 2008 Network Rail published the Western Mainline Route Utilisation Strategy (RUS) which identifies improvements to the rail network to contribute towards increased mode shift and therefore reductions in traffic on the strategic east/west transport network, thereby contributing to the Southeast Plan. Whilst the DfT/GOSE completed a Multi-Modal Study some years ago it is understood that committed improvements between London and Junctions 8/9 and specifically at Junction 11 have prompted the need to review M4 Junction 10 as part of the RSS. It is our view that the Highways Agency, through their Targeted Programme of Improvements (TPI), will identify improvements as part of the Southeast Plan. This reflects PPS11 which explains that the RSS “will provide greater certainty that the infrastructure required to support planned levels of development, will be provided at the appropriate time”.

PPS 11 also explains that “The focus, in identifying potential priorities, should not be exclusively on new infrastructure enhancements. It should in the first instance be on making best use of the existing transport network”. This might include innovative and alternative solutions to delivering enhanced transport network capacity including the use of discontinuous hard-shoulders and other active traffic management (ATM) such as hard-shoulder running (HSR) (Interim Advice Note (IAN) 111/08). Taking account of the RSS the Highways Agency must explore residual travel demand and the ability to deliver an enhanced transport network taking account of the HM Treasury’s CSR07 Policy recognising the ‘affordability’ in the development of “the Government’s investment plans for transport” to deliver an adopted RSS for the Southeast. There is also the recent announcement on ATM for M4 Junctions 3 to 12 for construction of HSR by 2015, subject to value for money (VFM) and environmental issues.

It is accepted that the Highways Agency would normally be responsible for co-ordinating improvements to Junction 10 were the Southeast Plan adopted but other parties might be responsible for the delivery of these improvements on an ‘individual’ basis as set out in DfT Circular 02/2007. However, the circular acknowledges that the Highway’s Agency “is a key delivery partner” in the RSS process and the subsequent publication of PPS12 carries increased weight in identifying infrastructure improvements in a planned and co-ordinated manner based on ‘robust and credible’ evidence. It is therefore more logical, through emerging infrastructure levies, to identify strategic improvements necessary to accommodate network and development traffic growth without undertaking abortive or piecemeal works.

### **Summary**

Improvements identified in section 4 of this assessment note provide robust and credible evidence that improvements could be delivered and it is our opinion that these represent a modest cost. Based on forecast traffic changes at M4 Junction 10 a number of slip roads will need to be improved to preserve safe free flow conditions in the future. The delivery of these works could be co-ordinated by the Highways Agency or the Regional Planning Body requiring contributions made by a series of developments including Amen Corner. The impact of Amen Corner at M4 Junction 10 is a component part of general traffic growth across the assessment area. As such it is reasonable to expect a contribution towards improvement measures, such as those already described. The size of the contribution should be proportional to the impact of the development and will be negotiated at a later stage.



## 1 Introduction

- 1.1.1 Amen Corner is located in the land contained by London Road/Coppid Beech roundabout to the west, John Nike Way to the north and A329 to the south. The site is identified as a major location for growth in Policy CS4 of the Core Strategy Development Plan Document.
- 1.1.2 Bracknell Forest Council (BFC) is currently in the process of developing an Area Action Plan for the site in conjunction with the owners of the land. The scale and location of the site also means that the Highways Agency is interested in the impact on their strategic road network, i.e. motorways and trunk roads, specifically M4 Junction 10 and M3 Junctions 3 and 4.
- 1.1.3 In 2007 the Council commissioned the development of a multi-modal model of Bracknell Forest and surrounding areas to assist in the assessment of the area-wide impacts of the sizeable developments proposed within and adjacent to the authority’s boundaries.
- 1.1.4 This document sets out the assessment methodology of the Amen Corner development using the Bracknell Multi Modal Transport Model and presents the findings concerning the potential effects of the Amen Corner proposals.

## 2 Assumptions

- 2.1.1 The assessment is based on a number of assumptions and “givens”. These are briefly detailed below.

### Proposed land use

- 2.1.2 The site is assumed to have the existing quantum of land use, following development:
  - Office (B1) – 40,000m<sup>2</sup>\*
  - Residential – 725 units
  - Education – 420 place primary school
- 2.1.3 Details of the phasing of the development are provided in Table 2.1:

**Table 2.1 – Amen Corner Development Phasing**

Land use	2007 – 2016	2016 – 2026	Total
Office (B1)	40,000 m <sup>2</sup>	0 m <sup>2</sup>	40,000 m <sup>2</sup>
Residential	325	400	725
Education	420	0	420

### Core Strategy – Land Use

- 2.1.4 In addition to the development at Amen Corner there is additional development at sites identified and included within the Core Strategy. These are summarised in Table 2.2 and are based on information provided by BFC, correct as at December 2008.

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\* The site allocation in the draft Local Area Action Plan is for 35,000m<sup>2</sup>. However, consideration has been given to increasing this to 40,000m<sup>2</sup> so this value has been adopted to provide robust analysis.

**Table 2.2 – Development Proposals**

Area	Development Type	Unit	Status	2007-2016	2016-2026
Amen Corner	Housing	Units		325	400
Peacock Farm	Housing	Units	Committed	1,370	
Staff College	Housing	Units		730	
Town Centre	Housing	Units	Committed	950	
Other sites with permission	Housing	Units		1,100	
Previously developed land	Housing	Units		1,650	
Windfall sites	Housing	Units		440	
Other Large and small Sites	Housing	Units			1,974
Whitegrove /Quelm Park	Housing	Units			2,220
Amen Corner	Office	m <sup>2</sup>		40,000	
Amen Corner	Primary school	Places		420	
Jennett's Park	Primary school	places		210	
Town Centre	Mixed			(see Table 2)	

2.1.5 The town centre redevelopment proposal, which is based on available information for the amount of existing development to be demolished, retained or newly built, is summarised in Table 2.3. this reflects information provided by BFC, correct as at December 2008.

**Table 2.3 –Town Centre Redevelopment Proposals**

Land Use	Retained	Demolished	(Replacement	New Development		Masterplan Total (a+b) (sqm)
				Gross Dev. (b)	Net addition	
Comparison Retail (A1)	33048	16272	12204	68375	56171	101423
Leisure / Services (a* & A3)	11222	7855	5891	16910	11019	28132
Business	63420	43526	43526	86950	43424	150370
Residential		9000	9000	66500	57500	66500
Health Centre		1829	1829	4163	2334	4163
Civic/Community		2357	2300	8000	5700	8000
College		0	0	5800	5800	5800
British Legion		800	800	1500	700	1500
Langley Hall		200	200	300	100	300
Indoor Market Building		2064	0	600	600	600
Other uses (Police, Courts etc)		4144	0	0	0	0
Convenience retail	3400	1950	1463	4000	2538	7400
Hotel	7000	0	0	9200	9200	16200
<b>Total</b>	<b>118090</b>	<b>89997</b>	<b>77213</b>	<b>272298</b>	<b>195086</b>	<b>390388</b>

2.1.6 Beyond the BFBC boundary growth projections in TEMPRO v 5.3 have been applied.

**Core Strategy – Transport Improvements**

2.1.7 The transport improvements identified as being required to meet the needs of the core strategy land use allocations are identified below in Table 2.4 to Table 2.7. Those specifically related to Amen Corner are specifically marked.

**Table 2.4 – Highway Improvements Within Town Centre**

<b>Scheme / Location</b>	<b>Directly related to Amen Corner Development?</b>
Modifications to the circulation system within the town centre to remove the elements of the Ring	
New junction between Church Road and the retained southern element of The Ring	
Improvements to the main approach junctions including 3M, Met Office and Station roundabouts	
Improvements at Station Road, Skimped Hill	

**Table 2.5 – Highway Improvements External to Town Centre**

<b>Scheme / Location</b>	<b>Directly related to Amen Corner Development?</b>
Horse and Groom roundabout improvements	
Leisure Centre roundabout improvements	
Coral Reef roundabout improvements	
Swinley Bottom Gyratory improvements	
Twin Bridges improvements	
New Peacock Farm roundabout	
Doncastle Way roundabout improvements	
John Nike Way junction signalisation	
Maidenhead Road/Forest Road improvements	
Newell Green/Forest Road/Warfield St/Osborne Lane improvements	
Running Horse roundabout improvements	
Renault Garage roundabout improvements	
New Amen Corner development road between John Nike Way and London Road	Y
Coppid Beech roundabout improvements	Y

**Table 2.6 – Public Transport Schemes**

<b>Scheme / Location</b>	<b>Directly related to Amen Corner Development?</b>
Town centre bus station relocation	
Bus priority measures within the town centre including a new facility on Bagshot Road	
Park and Ride at Peacock Farm with a service running every 10 min	
Increased frequencies on bus routes 153, 154, 162/163, 190, 191 and 194	
New bus route to serve Staff College development providing 4bph	
Rerouting of bus route 190 serve Amen Corner development	
New route serving Bracknell TC and Guildford direction running every 15 mins	
Amen Corner Shuttle with 3bph	Y

**Table 2.7 – Walking and Cycling Improvements**

<b>Scheme / Location</b>	<b>Directly related to Amen Corner Development?</b>
New segregated cycle lanes within the town centre linked to the existing external network	
New at-grade crossings of key traffic links in the town centre	

### **3 Assessment Methodology**

#### **3.1 SUMMARY**

3.1.1 The Amen Corner development has been assessed against a Reference Case which is the LDF Core Strategy minus the trips generated by the Amen Corner development. The relative impact of the site has been determined by a comparison between the development Test Case (Core Strategy) and the Reference Case (without Amen Corner). The assessment has been undertaken for the AM peak hour 2016, 2021 and 2026 scenarios.

#### **3.2 CORE STRATEGY**

3.2.1 The Core Strategy assessment was developed directly from the multi-modal model. Forecasts of trip generation, mode split and distribution of journeys were undertaken in accordance with WebTAG guidance. This allows journeys to redistribute in accordance with congestion, public transport provision and in relation to the cost of the journey.

3.2.2 The core strategy assessment included all of the development identified in section 2 of this document, and all of the transport improvements. In addition, bus route 190 is re-routed through the site.

- 3.2.3 One manual intervention was undertaken for this assessment. The trip generation was controlled to totals previously calculated in an earlier assessment of the site by WSP to ensure consistency of approach. These assumptions are provided below.
- 3.2.4 The trips were calculated using the TRICS trip rates used in the Amen Corner LDF Assessment (May 2008) and are displayed in Table 3.1. Table 3.2 shows the trips assigned to the Amen Corner zone in the 2007 Base and 2016, 2021 and 2026 Core Strategy models.

**Table 3.1 – TRICS (2007b) Trip Rates**

	AM 0800-0900 Hours		AM 1700-1800 Hours	
	Arrivals	Departures	Arrivals	Departures
Residential (per household)	0.135	0.372	0.353	0.226
Business Park, adjusted mean (per 100sqm)	1.436	0.232	0.208	1.185
Primary School	0.055	0	0.01	0.019

**Table 3.2 – AM Peak Hour Matrix Totals - Amen Corner Zone 283**

	2007 Base 2016/2021/2026 “without Amen Corner”	2016 Core Strategy	2021 Core Strategy	2026 Core Strategy
Origin Total	93	307	386	465
Destination Total	329	970	999	1028

**3.3 REFERENCE CASE (WITHOUT AMEN CORNER)**

- 3.3.1 For the Reference Case the Amen Corner specific schemes were removed from the network, and route 190 reverted to the current routing.
- 3.3.2 It was assumed that the pattern and level of trips observed in 2007 was a reasonable proxy for the 2016, 2021 and 2026 situations without further development.